Regional Water Quality Control Board
Central Valley Region
Board Meeting – 3/4 August 2006

Response to Written Comments for City of Tracy Wastewater Treatment Plant Proposed Time Schedule Order and Tentative Waste Discharge Requirements

At a public hearing scheduled for 3/4 August 2006, the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) will consider adoption of a proposed Time Schedule Order (TSO) and Tentative Waste Discharge Requirements (NPDES No. CA0079154) (Permit) for the City of Tracy Wastewater Treatment Plant, which was issued on 26 May 2006. This document contains responses to written comments received from interested parties in response to the proposed TSO and tentative Permit. Written comments from interested parties were required to be received by the Regional Water Board by 26 June 2006 in order to receive full consideration. Comments were received by the deadline from:

1. City of Tracy (City or Discharger)
2. California Sportfishing Protection Alliance (CSPA)
3. Central Valley Clean Water Association (CVCWA)
4. South Delta Water Agency (SDWA)
5. California Department of Water Resources (DWR)
6. California Urban Water Agencies (CUWA)
7. State Water Contractors (SWC)
8. Metropolitan Water District (MWD)
9. Alameda County Water District (ACWD)
10. Westlands Water District (Westlands)
11. State Water Resources Control Board (State Water Board)

Written comments from the above interested parties are summarized below, followed by the response of the Regional Water Board.

CITY OF TRACY COMMENTS

CITY OF TRACY - WDR COMMENT #1: Page 2. Finding F. The tentative permit inaccurately states that the technology-based effluent limitations based on tertiary or equivalent "meet" the technology-based secondary treatment requirements. This is incorrect as the tertiary treatment requirements exceed secondary treatment.

Request: Change "meet both" to "exceed" in the second sentence of Finding F.

RESPONSE: The Finding has been revised for better clarity.

CITY OF TRACY - WDR COMMENT #2: Page 3, Finding H. The tentative permit does not specify any uses designated for Old River. The Regional Board should identify any uses specifically designated for Old River or provide evidence in the record that the uses specified for the Delta are applicable to Old River.

In addition, the table on Page 3 specifies that Discharge Point 001 is to the Sacramento-San Joaquin Delta. The column regarding Discharge Point should be removed or the Receiving Water Name should be revised to "Old River" since the City's outfall is to a stretch is known as Old River.

In the same table, in the second column, the Receiving Water Name should be changed from "Underlying Groundwater" to "Deep Water Aquifer" since no one uses shallow groundwater for drinking water purposes and it may not meet the criteria set forth under Resolution 88-63. This change would provide the City with some flexibility in any future groundwater impact studies.

Request: Make requested changes to Finding H.

RESPONSE: Old River is located within the Sacramento-San Joaquin Delta. The beneficial uses for the Delta are specifically set forth in the Water Quality Control Plan for Sacramento and San Joaquin River Basins (Basin Plan). The beneficial uses designated for the Delta are also designated for Old River because it is part of the Delta. This is not a case of applying the so-called Tributary Rule or Statement in the Basin Plan.

Regarding the names of the receiving water in the Beneficial Uses table, the receiving water name has been changed from "Sacramento-San Joaquin Delta" to "Old River." The tentative Permit does not regulate groundwater. Therefore, the beneficial uses of the underlying groundwater have been removed from the table. This information will be included in separate waste discharge requirements that will regulate the discharges to groundwater.

CITY OF TRACY - WDR COMMENT #3: Page 4, Finding L. Antidegradation Policy. As previously stated, the Antidegradation Policy, adopted as a State Water Board resolution in 1968 cannot have incorporated a federal antidegradation rule adopted much later in time. The appropriate language would be to state that "Resolution 68-16 has been deemed to be consistent with ~~incorporates~~ the federal antidegradation policy…"

Request: Amend the third sentence as set forth above. Eliminate the fourth sentence, which inaccurately states the contents of Resolution 68-16 as it should apply only to high quality waters.

RESPONSE: The Finding has been clarified. The Regional Water Board is required to implement State Water Resources Control Board Resolution 68-16 – "Statement of Policy with Respect to Maintaining High Quality Waters in California" (also called the "Antidegradation" Policy) consistent with the federal regulations with respect to surface waters.

CITY OF TRACY - WDR COMMENT #4: Page 5, Finding M. Alaska Rule. The text included is not wholly accurate and should be amended to read:

On March 30, 2000, USEPA revised its regulation that specifies when new and revised State ~~and Tribal~~ water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000, effective date of May 30, 2000). . . . The final rule also provides that standards already in effect under State law and submitted to USEPA for approval by May 30, 2000, may be used for CWA purposes~~, whether or not approved by USEPA~~ unless or until USEPA has promulgated a more stringent water quality standard. However, if the State standards submitted before May 30, 2000 were disapproved by USEPA prior to May 30, 2000, as was the case with portions of the 1994 Basin Plan, the Alaska Rule did not apply to grandfather in these disapproved standards.

Request: Make the above requested changes to Finding M.

> **RESPONSE:** The Finding clearly sets forth the Alaska Rule and no changes are being made in the Finding.

CITY OF TRACY - WDR COMMENT #5: Page 5, Finding N. More Stringent than Federal Law. The allegation that the tentative permit contains restrictions that are not more stringent than required by federal law are incorrect. There are many instances where the permit requirements are more stringent, including tertiary treatment or equivalent requirements, mass limits in addition to concentration, numeric effluent limits, and daily or instantaneous limits, none of which are required by federal law and, therefore, are more stringent. Thus, this paragraph must be amended to correct these inaccuracies.

Request: Remove the first and last sentences of Finding N. Remove all text in the fourth sentence after the comma. Clarify whether any of the uses are being applied under the Tributary Footnote, which was disapproved by USEPA.

> **RESPONSE:** The Finding has been clarified to more clearly indicate provisions of the permit that the Regional Water Board considers to be more stringent than federal law. Old River is a part of the Delta and the Delta has beneficial uses specifically identified in the Basin Plan. The "tributary rule" is not applicable to the Old River, and, therefore, no clarification is needed.

CITY OF TRACY - WDR COMMENT #6: Page 5, Finding O. Antibacksliding. This finding should include language stating that effluent limitations can be removed upon new information, including a determination of no reasonable potential.

Request: Amend the finding to address allowable removal of effluent limits based on new information.

RESPONSE: The tentative Permit contains Provision VI.C.1.a. that allows the permit to be reopened and modified in the event new information becomes available. Therefore, it is not necessary to add this language to Finding O.

CITY OF TRACY - WDR COMMENT #7: Page 5, Finding P. Monitoring Requirements. The second sentence in this finding is incomplete and should be amended.

Request: Amend the second sentence as follows: "Sections 13225(c), 13267(b), and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports after the requisite burden analysis is performed."

RESPONSE: The additional language is not necessary. All monitoring under this permit is based on Water Code section 13383. The Clean Water Act requires monitoring.

CITY OF TRACY - WDR COMMENT #8: Page 7, Provision III.A. This provision should be clarified that it only covers treated wastewater. This prohibition should no longer cover untreated wastewater upstream of the headworks as that is now covered by the Sanitary Sewer Overflow waste discharge requirements and should not be duplicatively addressed here.

Request: Insert the word "treated" so Provision III. A. only applies to the "Discharge of treated wastewater."

RESPONSE: The tentative Permit prohibits discharges from the sewer collection system upstream of the headworks of the wastewater treatment plant. Therefore, a change to Provision III.A. is unnecessary. Regardless of the coverage obtained under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order 2006 0003), the Discharger's collection system is part of the treatment system that is subject to the tentative Permit. As such, pursuant to federal regulations and as covered by the tentative Permit, the Discharger must properly operate and maintain its collection system [40 CFR section 122.41(e)], report any non-compliance [40 CFR section 122.41(l)(6) and (7)], and mitigate any discharge from the collection system in violation of this Order [40 CFR. section 122.41(d)].

CITY OF TRACY - WDR COMMENT #9: Page 7, Provision III.B. This provision should only cover the by-pass and overflow of partially treated wastewater, not untreated as that is now covered by the Sanitary Sewer Overflow waste discharge requirements.

Request: Replace the word "untreated" with "partially treated."

RESPONSE: A change to Provision III.B. is unnecessary. See response to City of Tracy – WDR Comment #8.

CITY OF TRACY - WDR COMMENT #10: Pages 7-10, Provision IV.A.1.a.- l. Final Effluent Limits. These sections on final effluent limits states that these limits are "effectively immediately" or effective on compliance with other provisions. However, some of these limits are not effective immediately because interim limits apply. A sentence or footnote should be added to state that these limits apply unless interim limits have been imposed, and upon the expiration of those interim limits. This same comment would apply for turbidity and coliform where the final limit makes no mention of an interim limit.

Request: Clarify that not all of the limits are "effective immediately" to avoid confusion over applicable limits, or include a chart as suggested that includes interim limits as is done in other regions.

RESPONSE: Footnotes have been provided in the tentative Permit to clarify there are interim effluent limitations for copper, BOD_5, TSS, turbidity, and total coliform organisms.

CITY OF TRACY - WDR COMMENT #11: Page 7, Provision IV.A.1.a. Oil and Grease/Settleable Solids Limits. The Oil and Grease parameter has a higher average monthly limit (15 mg/L) than the maximum daily limit (10 mg/L). These numbers are apparently transposed, and should be corrected. In addition, there is no valid reasonable potential analysis for either oil and grease or settleable solids. These are new limits that have not been adequately justified and should be removed. Furthermore, daily limits for these constituents have not been properly justified under 40 C.F.R. §122.45(d)(2).

In addition, the settleable solids limit is duplicative of the settleable matter receiving water limit in Provision V.A.5., at page 12, and is unnecessary.

Furthermore, these limits are being maintained ostensibly because of antibacksliding concerns, without an RPA being performed. See Fact Sheet at pg. F-39 and F-47. There is no demonstrated reasonable potential to exceed the narrative objectives for these constituents because there is no evidence that these constituents are causing nuisance, visible film or coating (for oil and grease), or adversely affecting beneficial uses. Without such a demonstration, the new information on the discharge shows that there is no reasonable potential and a limit is not required under the new information exception to the general rule against backsliding.

Request: Remove or amend the Oil and Grease and Settleable Solids limits.

RESPONSE: The final effluent limitations for oil and grease have been corrected, as noted in the City's comments.

The final effluent limitations for settleable solids and oil and grease are necessary. The effluent limitations for these parameters have been included based on the

reasonable potential for the discharge to cause or contribute to an in-stream excursion of the Basin Plan's water quality objectives. The oil and grease effluent limitations are necessary to ensure compliance with the Basin Plan's narrative objectives for oil and grease and floating material and State Water Board Resolution No. 68-16. The settleable solids effluent limitations are also necessary to ensure compliance with the Basin Plan. For inland surface waters, the Basin Plan states that "[w]*ater shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.*" Therefore, pursuant to 40 CFR 122.44(d)(1)(i), effluent limitations for settleable solids and oil and grease have been included in the tentative Permit.

The final numeric effluent limitations for settleable solids and oil and grease implement narrative water quality objectives. The anti-backsliding regulations are cited as the rationale for carrying forward the numeric effluent limitations from the previous Order.

Daily maximum effluent limitations for settleable solids and oil and grease are included in the tentative Permit, in lieu of a weekly average, to ensure that the treatment works operate in accordance with design capabilities. Furthermore, daily maximum effluent limitations for oil and grease are included to ensure that the Discharger requires proper removal and disposal of oil and grease from commercial food service sources and properly operates and maintains the collection system to minimize plugging from oil and grease.

CITY OF TRACY - WDR COMMENT #12: Page 7, Provision IV.A.1.a. and Page E-5. pH Limits. The City requests the following footnote be added to the limits for pH:

"(1) Pursuant to 40 CFR §401.17, for pH effluent limitations under continuous monitoring, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied: (i) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the range of pH values shall exceed 60 minutes."

Request: Add the requested footnote to the pH Limits and reference same in the MRP.

RESPONSE: The effluent limitations for pH in the tentative Permit are water quality-based effluent limitations necessary to protect the beneficial uses of the receiving water. The regulations cited in the City's comment are not applicable to the discharge. These regulations are for effluent limitations that have been set in accordance with effluent limitation guidelines (ELGs). ELGs are technology-based effluent limitations and are used for setting effluent limitations for non-municipal dischargers.

CITY OF TRACY - WDR COMMENT #13: Page 7, Provision IV.A.1.a. Aluminum Limits. The aluminum limit proposed as a monthly average is less than the lowest aluminum criteria guidance number. Therefore, this is more stringent than required under federal law and must include an analysis under Water Code sections 13263 and 13241. See City of Burbank v. State Water Resources Control Board, 35 Cal. 4th 613 (2005). Reasonable potential was found only because of calculations made to the City's data that uses a Projected Maximum Effluent Concentration (MEC) instead of the actual MEC of 74 µg/L. See Fact Sheet at pg. F-4. This projection of MEC is not authorized by the applicable guidance under the SIP Section 1.3, which requires that RPA be performed using actual observed MEC. Thus, the City requests that the Regional Board re-do the RPA using the actual MEC of 74 µg/L for aluminum (as well as any other limits where the Regional Board used Projected MEC, such as copper, MTBE and nitrate). In addition, this limit fails to reflect local conditions and the fact that the the U.S. EPA chronic 304(a) guidance criteria for aluminum of 0.75 mg/L (CMC) and 0.087 mg/L (CCC) must be considered in light of site specific factors and issues related to indicator organisms, species diversity, population density, growth anomalies, or biotoxicity test results before a determination can be made as to whether or not an applicable water quality standard has been violated. As U.S. EPA pointed out in its criteria guidance "…aluminum is substantially less toxic at higher pH and hardness."2 Although no direct hardness-toxicity relationship has been established for aluminum, it is relevant that the toxicity of other metals decreases significantly as the hardness levels go up. For example, the chronic guidance criterion for copper at 28 mg/L hardness is about three times higher than the chronic criterion at a hardness of 8 mg/L. Applying this same relationship to aluminum, the chronic toxicity criterion for aluminum, as modified to adjust for hardness, would be an order of magnitude above the chronic U.S. EPA guidance criterion of 87 µg/L.

Further, the Regional Board's Basin Plan also states that "water quality objectives do not require improvement over naturally occurring background concentrations. In cases where the natural background concentration of a particular constituent exceeds an applicable water quality objective, the natural background concentration will be considered to comply with the objective." See Basin Plan at IV-17.00. There is some indication that this is the reason why the Regional Board chose not to utilize the aluminum chronic criterion to interpret its narrative toxicity objective when it has identified impaired waters for inclusion on the section 303(d) list.

From the above, it is unclear as to the applicability of the aluminum guidance criteria in waters with pH and hardness greater than 6.5 and 10 mg/L, respectively. It is important to recognize that while a pH of 6.5 is near the lower end of the range observed in natural waters, it is rare to find a natural water with a hardness of less than 10 mg/L. It is also important to recognize that hardness levels have a significant impact on toxicity for many metals. These types of site specific considerations must be taken into account when determining the applicability of a particular guidance criteria to local waters. See City of Woodland v. Regional Water Quality Control Board for the Central Valley Region, et al, Case No. RG04-188200, Statement of Decision at pg. 13 (overturned

Regional Board's regulation of aluminum because the Regional Board did not consider site-specific factors and, instead, simply relied on the EPA's ambient water quality criteria for aluminum).

The City suggests inclusion of a pH adjustment calculation, similar to the hardness adjustment calculations set forth in the CTR for many metals. See e.g., 40 C.F.R. §131.38(b)(2). The suggested calculation is as follows:

Aluminum Limit = $e^{(1.209 - 2.426\ (pH) + 0.286\ K)}$ where $K = (pH)^2$

This calculation should be added to Provision VII.G.

Request: Redo Reasonable Potential Analysis using MEC instead of a calculated and projected MEC. If an effluent limit is retained, add requested pH adjustment equation for aluminum to Provision VII.G., or at least impose limits no more stringent than the 87 µg/L for monthly average and 750 µg/L as a short-term average to coincide with USEPA's criteria guidance, upon a demonstration of reasonable potential to exceed both of these values. This would also be consistent with the "Limits to Apply Water Quality Objectives and Promulgated Criteria" of 87 contained in Table F-1 on Page F-9 of the Fact Sheet. If more stringent limits are applied, then the Regional Water Board must perform a CWC section 13263 analysis.

RESPONSE: Aluminum is not a priority pollutant. Therefore, the reasonable potential analysis was performed based on the procedures in the USEPA Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001) (TSD), not the SIP. The TSD requires the calculation of a projected maximum effluent concentration (MEC) for comparison with applicable water quality objectives. To project the MEC, a multiplying factor is determined (for 99% confidence level and 99% probability basis) using the number of results available and the coefficient of variation of the sample results. The projected MEC for aluminum was 266 µg/L, based on 16 samples collected between January 2002 and September 2005. The projected MEC exceeds the applicable water quality objective and effluent limitations are required pursuant to 40 CFR 122.44(d)(1)(i).

The aluminum effluent limitations are not more stringent than required under federal law. The calculation of the aluminum effluent limitations are based on the procedures set forth in Section 5.4.1 of TSD for aquatic life protection. The acute (1-hour) and chronic (4-day) aquatic toxicity criteria are converted to average monthly and maximum daily effluent limitations. Based on the statistics, it is possible to calculate an average monthly effluent limitation that is lower than the chronic criterion. The procedures for calculating water quality-based effluent limitations are described in detail in the Fact Sheet (Attachment F, WQBEL Calculations, Section IV.C.4.d.)

The City also objects to the use of the USEPA National Recommended Water Quality Criteria (NRWQC) for aluminum as the basis for effluent limits. The City has not provided information specific to Old River that demonstrates that the NRWQC for aluminum are not applicable. In the absence of such information, the Regional Water Board must rely on the national criteria to prevent toxicity to aquatic life from aluminum. The national criteria were developed based on scientific studies that concluded that aluminum is toxic to aquatic life at specified concentrations. Since the discharge contains aluminum it is necessary to assure that the discharge does not result in toxicity. The narrative toxicity objective from the Basin Plan is applicable to the discharge. Aluminum is a toxic constituent of the discharge. Applying the narrative toxicity objective using the USEPA National Recommended Water Quality Criteria for aluminum is consistent with state policy, the *Policy for Application of Water Quality Objectives* in Chapter IV (beginning on page IV-16.00) of the Basin Plan. With respect to narrative objectives, the Regional Water Board must establish effluent limitations using one or more of three specified sources, including EPA's published water quality criteria. [(40 CFR 122.44(d)(1)(vi)(A), (B), or (C)].

The City points out that the NRWQC for aluminum, Criteria Continuous Concentration, contains a footnote that states,

> "*USEPA believes that use of Water-Effects Ratios might be appropriate because: (1) aluminum is less toxic at higher pH and hardness but relationship not well quantified; (2) aluminum associated with clay particles may be less toxic than that associated with aluminum hydroxide particles; (3) many high quality waters in U.S. exceed 87 ug/L as total or dissolved.*"

Based on this information, the City requests that the NRWQC for aluminum be adjusted based on the pH and hardness of Old River prior to performing the reasonable potential analysis. However, USEPA states that the relationship between aluminum toxicity, pH and hardness is not well quantified and recommends that a Water-Effects Ratio (WER) be used to adjust the criteria where necessary. The City has not submitted information supporting a WER for aluminum discharge to Old River. Without this information, the Regional Water Board must use the default assumption of a WER of 1.0, as was done in performing the reasonable potential analysis. As explained in the Fact Sheet, the acid soluble analysis method is allowed to be used to determine compliance with the effluent limits, which should eliminate from consideration aluminum associated with clay particles. The upstream receiving water data for aluminum exceeds both the acute and chronic NRWQC, based on total recoverable analyses. The City is welcome to provide additional upstream data using the acid soluble method. If those data are below the NRWQC, then the reasonable potential analysis could be revised and the need for effluent limits reassessed at that time.

CITY OF TRACY - WDR COMMENT #14: Page 7, Provision IV.A.1.a. Copper Limits. The Regional Water Board inappropriately utilizes the copper objective from Sacramento-San Joaquin Basin Plan, Table III-1, in the derivation of proposed effluent limitations instead of the CMC included in the California Toxics Rule.

The draft Tentative Order proposes use of the dissolved copper objective of 0.01 mg/l (10 µg/l) in addition to the use of CTR dissolved copper standards in the derivation of proposed effluent limitations. The City argues that the Table III-1 copper objective should not be used in the effluent limit derivation for the following reasons: (1) the Table III-1 objective is based on scientific data developed prior to 1968, is aimed at the protection of freshwater aquatic life, and is therefore obsolete in comparison to the CTR Criterion Maximum Concentration for dissolved copper for protection of freshwater aquatic life, and (2) the Table III-1 is not a site-specific objective and is not based on studies unique to the Sacramento-San Joaquin Valley; therefore, the Table III-1 copper objective is not authorized for use under the CTR.

Review of the record that led to the establishment of the Table III-1 copper objective reveals the following:

- The subject copper objective was included in the 1975 Basin Plan as a result of direction provided to Basin Plan contractors in Management Memorandum No. 20 on March 21, 1973 by the Division of Planning and Research of the SWRCB.

- Management Memorandum No. 20 was sent to a statewide list of Basin Plan contractors and was not specific to the Central Valley.

- Management Memorandum No. 20 included a table titled “Tentative Guidelines for Evaluating the Quality of Water in Various Fresh-Water Habitats”. This table was applicable to the following beneficial uses: Warm fresh-water habitat (WARM), Cold fresh-water habitat (COLD), Fish Spawning (SPWN), Fish Migration (MIGR) and Wildlife Habitat (WILD).

- In the above described table, a guideline value for copper of 0.01 mg/l was included. A footnote in the table indicated that the value was “Preliminary Information” derived from a revision to the National Technical Advisory Committee (NTAC) to the Secretary of the Interior, 1968. Water Quality Criteria. Federal Water Pollution Control Administration, US Department of the Interior.

Clearly the Table III-1 copper objective was adopted in the Basin Plan in 1975 to protect aquatic life uses based on scientific information available at the time, specifically information contained in a 1968 national water quality criteria document.

Since 1968, the USEPA was established and national water quality criteria for copper for protection of aquatic life uses have been developed, following the Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic

Organisms and Their Uses, 1985. These EPA criteria (which form the basis for the CTR copper standards) supersede and replace the 1968 NTAC advisory criteria that were the basis for the Table III-1 objective. The use of the Table III-1 copper objective in addition to the CTR standard in effluent limit derivation is, therefore, inappropriate (due to its basis in outdated science) and redundant (since the CTR standard considered all relevant and appropriate scientific evidence, including the data supporting the 1968 criteria.)

As noted above, given that the Table III-1 objective was based on a 1968 national criteria document, which were used as statewide guidelines in the 1975 Basin Planning Process, the objective clearly does not qualify as a site-specific objective. In the preamble to the CTR, the statement is made that site-specific criteria in the Basin Plans would be used in the calculation of water quality based effluent limits in NPDES permits. *See* 65 Fed. Reg. 31686 (May 18, 2000). The City argues that the copper objective in Table III-1 is not a site specific objective. The City points to the site specific objectives for the Sacramento River upstream of Hamilton City that are referenced in the CTR preamble. *Id.* Those site-specific objectives were established for a specific reach of the Sacramento River based on a site specific analysis. Such an analysis was not performed for the Table III-1 copper objective.

Request: For the above reasons, the City requests that the proposed effluent limits for copper be recalculated using only the CTR standards.

RESPONSE: The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (a.k.a., State Implementation Policy or SIP) in the fourth footnote on Page 1 states, "*If a water quality objective and a CTR criterion are in effect for the same priority pollutant, the more stringent of the two applies.*" This is consistent with guidance supplied by Kathleen Goforth, Water Quality Standards Coordinator for USEPA, Region 9. In an email reply to an inquiry from Regional Water Board basin planning staff, dated 24 August 2004, Ms. Goforth states, "Where there are both State and federally promulgated criteria, if the State criteria are more stringent than the federal criteria, the State's more stringent criteria apply. This is explicitly stated in both the NTR [40 CFR 131.36(c)(1)] and CTR [40 CFR 131.38(c)(1)]. Conversely, if the federal criteria are more stringent than the State criteria, then the federal criteria apply." Federal regulations in 40 CFR 131.38(c)(1) state, "The criteria in paragraph (b) of this section apply to the State's designated uses cited in paragraph (d) of this section and apply concurrently with any criteria adopted by the State, except when State regulations contain criteria which are more stringent for a particular parameter and use, or except as provided in footnotes p, q, and x to the table in paragraph (b)(1) of this section."

Neither this federal regulation nor the SIP specify that the State's objective be a site-specific objective, merely that the State's objective be in effect. The numerical copper objective in Table III-1 of the Basin Plan was legally adopted by the Regional

Water Board, approved by the State Water Board and USEPA, and is therefore in effect until modified or withdrawn by a subsequent formal rulemaking (e.g., a Basin Plan amendment). According to Sections 13263 and 13377 of the California Water Code, the Regional Water Board is required to implement the Basin Plan, including water quality objectives contained therein, when adopting waste discharge requirements and NPDES permits.

One cannot directly compare the CTR criteria with the Basin Plan site-specific objective, because the CTR includes separate criteria for acute and chronic aquatic toxicity, whereas, the site-specific objective is expressed as a single maximum concentration. For a meaningful comparison, water quality-based effluent limitations (WQBELs) were first developed based on each water quality objective/criterion and then compared. For the CTR criteria, WQBELs calculated using section 1.4 of the SIP result in an average monthly effluent limitation (AMEL) of 9.1 µg/L and a maximum daily effluent limitation (MDEL) of 14 µg/L (total recoverable). For implementing the Basin Plan's numeric site-specific objective for copper, the Regional Water Board's practice is to only require a MDEL, which would result in a MDEL of 10.4 µg/L (total recoverable).

The MDEL based on the CTR criteria (14 µg/L) exceeds the MDEL based on the Basin Plan site-specific objective for copper (10.4 µg/L). Therefore, it is necessary to set the MDEL at 10.4 µg/L to implement the Basin Plan site-specific objective for copper. However, an MDEL of 10.4 µg/L exceeds the AMEL based on the CTR criteria (9.1 µg/L). Therefore, to protect against chronic aquatic toxicity in the receiving stream, it is also necessary to include an AMEL of 9.1 µg/L.

CITY OF TRACY - WDR COMMENT #15: Page 7, Provision IV.A.1.a. Human Health-based Limits. The tentative permit improperly includes maximum daily limits to implement human-health based water quality objectives. The limits for iron, manganese, dichlorobromomethane, and chlorodibromomethane are all based on long-term (70 years of exposure) objectives to protect human health. No justification exists for short-term limits for these constituents. In fact, for iron, the Regional Board has already been told as much. See *In the Matter of the Own Motion Review of the City of Woodland*, SWRCB Order No. WQ 2004-0010 (holding that "implementing the limits as instantaneous maxima appears to be incorrect because the criteria guidance value . . . is intended to protect against chronic effects.") The same rationale applies to the limits for manganese, dichlorobromomethane, and chlorodibromomethane.

Request: In accordance with SWRCB Order No. WQ 2004-0010, impose only monthly averages for all constituents with objectives set to protect against long term chronic effects.

RESPONSE: The effluent limitations for iron and manganese are based on the Basin Plan site-specific water quality objectives for the Delta and are expressed as maximum concentrations. Therefore, the effluent limitations for iron and manganese

are expressed as maximum daily effluent limitations in the tentative Permit to implement these objectives.

Dichlorobromomethane and chlorodibromomethane are priority pollutants. Thus, the SIP governs the calculation of effluent limitations. The effluent limitations for dichlorobromomethane and chlorodibromomethane were calculated in accordance with section 1.4 of the SIP, which contains procedures for calculating maximum daily and average monthly effluent limitations.

CITY OF TRACY - WDR COMMENT #16: Pages 8-9, Provision IV.A.1.b.-d. Maximum Daily and Mass Limits for BOD_5 and TSS. Federal law requires only monthly and weekly averages and concentration-based limits for BOD_5 and TSS. The Regional Water Board is proposing to add more stringent limits based on maximum daily values and mass limits that are more stringent than required by federal law. The Regional Board attempts to justify its actions based on federal guidance. See Fact Sheet at pg. F-51. However, guidance cannot overrule federal regulatory requirements. As such, the Regional Water Board must perform a CWC section 13263 analysis prior to imposing these limits.

Request: Remove all maximum daily and mass limits for conventional pollutants.

RESPONSE: Maximum daily effluent limitations for BOD_5 and TSS are included in the tentative Permit to ensure the treatment works are not organically overloaded and operate in accordance with the design capabilities. Regarding mass limitations, federal regulation at 40 CFR 122.45(f)(1) states that "*Pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass…*" and 40 CFR 122.45(2) states that "*Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.*" Mass limitations for BOD_5 and TSS have been included in accordance with these regulations and are necessary to ensure the treatment works are not organically overloaded and operate in accordance with the design capabilities. Furthermore, BOD_5 and TSS are oxygen-demanding substances, therefore, mass limitations are also necessary to protect the aquatic life beneficial uses of the receiving stream.

CITY OF TRACY - WDR COMMENT #17: Pages 8-9, Provision IV.A.1.b.-d. Mass Limits. Each of the tables in these provisions includes Mass Effluent Limitations for Discharge Point 001 and/or Discharge Point 002. If mass limits are retained notwithstanding the City's request for removal, the City then requests that footnote 1 be clarified to state that compliance with the mass limits contained in the table are to be measured during the average dry weather flow period, and do not apply in wet weather. The City suggests that the average dry weather flow period be defined as the period of lowest flow for three consecutive dry weather months in a calendar year. Also, the Regional Water Board should modify the mass limits for average weekly and maximum

daily mass limits by a peaking factor that account for normal variation in these values during a typical dry weather month.

Alternatively, the City requests that the tables be modified to add mass limits that are applicable during the highest average wet weather month that is projected to occur when ADWF flows are at 9 mgd. In this case, the City also requests modification of the average weekly and maximum daily mass limits by a peaking factor to account for normal variation in these values during the highest average wet weather month.

Request: If mass limits are retained, they should not apply in wet weather, or should be calculated on peak wet weather flows.

RESPONSE: New compliance determination language has been added in accordance with State Water Board WQO 2004-0013, *In the Matter of the Petition of Yuba City*, which states, "…*mass limitations should be conditioned to allow the mass loading to increase in proportion to the discharge flow during wet weather discharge flows*…" The following language has been added to Section VII. of the tentative Permit:

"K. Effluent Mass Limitations. The effluent mass limitations contained in Final Effluent Limitations IV.A.1.b., IV.A.1.c., IV.A.1.d., and Interim Effluent Limitations IV.A.2.a. are based on the permitted average daily discharge flow (Final Effluent Limitations IV.A.1.k.), and calculated as follows:

Mass (lbs/day) = Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor)

If the effluent flow exceeds the permitted average daily discharge flow due to wet-weather storm events or when groundwater is above normal and runoff is occurring, the effluent mass limitations contained in Final Effluent Limitations IV.A.1.b., IV.A.1.c., IV.A.1.d., and Interim Effluent Limitations IV.A.2.a. shall not apply. Under these specific circumstances the effluent mass limitations shall be recalculated based on the wet weather effluent flow rate rather than the permitted average daily discharge flow."

CITY OF TRACY - WDR COMMENT #18: Page 8, Provision IV.A.1.h, and Page E-5. Chlorine. The City requests that the following footnote, taken from language in other regions' permits, be added to the effluent limits for chlorine residual:

"Requirement defined may be below the limit of detection in standard test methods defined in the latest edition of Standard Methods for the Examination of Water and Wastewater. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine residual and sulfur dioxide (or other dechlorinating chemical) dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence

is provided, Regional Water Board staff may conclude that these false positive chlorine residual exceedances are not violations of this permit limitation."

Request: Add the requested footnote to the Chlorine Residual effluent limits and reference same in the MRP.

RESPONSE: Biasing systems[1] for determining compliance with total residual chlorine effluent limitations are appropriate and commonly used by NPDES dischargers throughout the Central Valley Region. The following language has been added to Section VII. of the tentative Permit to provide clarification on compliance determination of the total residual chlorine effluent limitations:

"*L. **Total Residual Chlorine (Section IV.A.1.h.).** Continuous monitoring analyzers for chlorine residual or for dechlorination agent residual in the effluent are appropriate methods for compliance determination. A positive residual dechlorination agent in the effluent indicates that chlorine is not present in the discharge, which demonstrates compliance with the effluent limitations. This type of monitoring can also be used to prove that some chlorine residual exceedances are false positives. Continuous monitoring data showing either a positive dechlorination agent residual or a chlorine residual at or below the prescribed limit are sufficient to show compliance with the total residual chlorine effluent limitations, as long as the instruments are maintained and calibrated in accordance with the manufacturer's recommendations.*

Any excursion above the 1-hour average or 4-day average total residual chlorine effluent limitations is a violation. If the Discharger conducts continuous monitoring and the Discharger can demonstrate, through data collected from a back-up monitoring system, that a chlorine spike recorded by the continuous monitor was not actually due to chlorine, then any excursion resulting from the recorded spike will not be considered an exceedance, but rather reported as a false positive."

CITY OF TRACY - WDR COMMENT #19: Page 9, Provision IV.A.1.g. and Fact Sheet, Page F-60. Temperature. The City thinks that language needs to be added to clarify that this limitation (i.e. that the "maximum temperature of the discharge shall not exceed the natural receiving water temperature by more than 20°F") derives from the temperature objectives in the Thermal Plan and that this limitation is subject to change as a result of the Temperature Study required in the Time Schedule Order that accompanies the draft permit. The Time Schedule Order includes a requirement to

[1] A typical biasing system continuously measures the chlorine residual prior to dechlorination (chlorinated final effluent or CFE) and the chlorine residual from a 50/50 mixture of chlorinated final effluent and dechlorinated final effluent (mixed final effluent or MFE). An MFE < ½ CFE indicates an excess of dechlorinating agent in the effluent and no chlorine residual in the discharge.

evaluate and implement alternatives to comply with the Thermal Plan or to clearly demonstrate that an exception to the Thermal Plan will not cause adverse impacts to aquatic life.

Finally, all temperature requirements should be contained in the permit, not a TSO. The Thermal Plan contains compliance schedule authority at paragraph 5 of the Implementation section. (Attached as Exhibit A herein) The City has demonstrated that a longer time schedule than one ending on July 1, 1977 as set forth in the Thermal Plan, is required to perform the studies authorized in the Thermal Plan (see paragraph 4 of the General Water Quality Provisions section and paragraph 4 of the Implementation section of the Thermal Plan) and to complete construction of any necessary facilities. Therefore, any requirements based on the thermal plan can be placed within the permit.

Request: Clarify that this limitation derives from the temperature objectives in the Thermal Plan and is subject to change as a result of the Temperature Study required in the Time Schedule Order that accompanies the draft permit. Make the changes to the time schedule as requested in the City's cover letter, including putting all temperature-related requirements in the permit, instead of the TSO.

RESPONSE: Additional language has been included in the tentative Permit to clarify that the effluent and receiving water limitations for temperature are based on the Thermal Plan.

The Discharger is capable of complying with the Thermal Plan requirements at the currently permitted discharge flow. Therefore, a time schedule for compliance is unnecessary and has been removed from the proposed Time Schedule Order. Modeling performed by the Discharger indicates that the 1 °F limitation of Objective 5.A.(1)b[2] of the Thermal Plan may be exceeded 3 months of the year at the expanded daily average discharge flow rate of 16 million gallons per day. Prior to increasing the discharge, the tentative Permit requires the Discharger to demonstrate compliance with all effluent and receiving water limitations, including those for temperature, prior to expanding its permitted average daily flow. The Discharger must either be in compliance with the Thermal Plan requirements or have obtained a Thermal Plan exception, which would necessitate modification of the temperature effluent and/or receiving water limitations in the Order.

CITY OF TRACY - WDR COMMENT #20: Page 10, Provision IV.A.1.k. and A.2. Flow Restrictions. To address the possibility that the City's current discharge flow limit of 9 mgd (ADWF) might be exceeded before 2008, the City suggests that the flow requirements be removed or that it be allowed to prepare an engineering study based

[2] The Thermal Plan at 5.A.(1)b *states, "Elevated temperature waste discharges either individually or combined with other discharges shall not create a zone, defined by water temperatures of more than 1 °F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of a main river channel at any point."*

on completed improvements so far and plant past performance that would allow a temporary increase in plant flow until the construction is completed.

Request: Add the following new Provision IV.A.2.g.:

"g. In the event the Discharger projects the Average Daily Discharge Flow to exceed 9 mgd before completion and operation of the Phase 1 Improvements, the Discharger shall complete an engineering study on the capability of the plant to process the additional incremental flow and loadings. The report will evaluate the improvements constructed to date and plant performance data. Upon submittal of this study and approval by the Executive Officer, a capacity increase to up to 10.8 mgd will be granted."

RESPONSE: The tentative Permit in Provision VI.C.4.b.requires the Discharger to meet certain requirements before the allowable discharge flow can be increased. These requirements are necessary for compliance with the Antidegradation Policy. The City has not provided adequate technical justification to allow the requested change to the Order. Furthermore, this is a significant change that would require the Order to be re-noticed for public comment. If the City provides adequate justification for the modification, the Order could be reopened and amended.

CITY OF TRACY - WDR COMMENT #21: Page 11, Provision IV.A.2.d. Mercury Mass Limits. The City requests that the Regional Board modify the proposed monthly mass limit to be an annual mass limit to better reflect the long term concerns with mercury mass loadings. The City requests instead the previously suggested annual mass limit of 0.51 pounds per year. This newly proposed limit seems to be merely an application of a proposed monthly limit derived from the previous annual limit. It should be noted that the City will be required under the permit to take action to minimize the effluent mercury mass loading, both through treatment requirements and through source control activities. Therefore, an overly restrictive monthly mercury mass limit will not serve a reasonable purpose and may not be feasible given fluctuations in monthly loadings where some months have closely approached the proposed monthly value (e.g., a value of 0.0392 was seen in December of 2004).

Request: Impose the previously suggested annual mass limit of 0.51 pounds per year in lieu of the monthly mass limit of 0.042 pounds per month.

RESPONSE: The Delta waterways are listed in accordance with CWA section 303(d) as impaired for mercury, based on bioaccumulation of this pollutant in fish tissue. Regional Water Board staff are developing a draft Methylmercury TMDL for the Delta that proposes methylmercury load reductions for facilities discharging to the South Delta, including Old River. The Delta Methylmercury TMDL is scheduled for adoption by the Regional Water Board in December 2006.

The SIP recommends the Regional Water Board consider whether the mass loading of bioaccumulative pollutants should be limited in the interim to "*representative current levels*" pending development of applicable water quality standards or TMDL allocation. The intent is, at a minimum, to prevent further impairment while a TMDL for a particular bioaccumulative constituent is being developed. Any increase in loading of mercury to an already impaired water body would further degrade water quality.

The tentative Permit implements the recommendation from the SIP for bioaccumulative constituents. The interim effluent limitation for mercury was developed based on the current performance of the facility, utilizing the maximum concentration detected in 12 effluent samples collected from August 2004 to July 2005. An annual limit would allow spikes to be averaged out over the year. The development of the interim effluent limitation is reasonable and is in accordance with the SIP.

CITY OF TRACY - WDR COMMENT #22: Pages 11, 13 and 25, Provisions IV.B., IV.C., V.B. and VI.C.5, Page E-9, Paragraphs VI, VII, and VIII (relating to groundwater), Page F-59, Paragraphs IV.E. and F, Page F-61, Paragraph V.B., Page F-62, Paragraphs VI.D.2. and VI.E.1., Page F-70, Paragraph VII.B.5., and Page F-71, Paragraph VII.B.7. Unnecessary References and Provisions. These provisions referencing Land Discharge Specifications, Reclamation Specifications, Groundwater Limitations and Monitoring, and Construction, Operation and Maintenance Specifications, and Biosolids Monitoring should be removed. Another WDR Order should not be referenced as it might be claimed to be incorporated by reference into this NPDES permit and, thus, become federally enforceable. A separate order is enforceable on its own without being referenced herein.

Request: Remove Provisions IV.B., IV.C., V.B and VI.C.5., Paragraphs VI, VII, and VIII in Appendix E, and Paragraphs IV.E. and F., V.B., VI.D.2., VI.E.1., VII.B.5., and VII.B.7. in Appendix F as unnecessary, and renumber Provisions VI.C.6. and 7. as VI.5. and VI.6. in the permit and Paragraph VII.B.6. in the Fact Sheet.

RESPONSE: The reference to a separate Order that regulates the groundwater discharges has been clarified, but not removed. Furthermore, the request to remove the sections relating to groundwater and renumber the table of contents cannot be granted. The sections must remain to maintain consistency in the section numbering. It has been stated that these sections are not applicable.

CITY OF TRACY - WDR COMMENT #23: Page 11, Provision V.A.1. Dissolved Oxygen. The proposed language is difficult to interpret. Tracy will monitor DO in the effluent continuously. Tracy will sample Old River once per week for temperature and DO. How is the City to determine "saturation in the main water mass"? In the winter, when the river is cold, the water may have a very high saturation number. Tracy's effluent will be warmer and, therefore, may be unable to hold enough oxygen to meet

the 85% requirement. Should this provision apply when DO is not an issue in the river? These items need to be clarified.

Request: Clarify either in the permit, the MRP, or Fact Sheet how and when this receiving water limitation applies, how each of these measurements are to be determined, and the background values to be used for comparison.

RESPONSE: An error was made in the receiving water limitation for dissolved oxygen. The requirement regarding "saturation in the main water mass" is only required outside the Delta. Therefore, the receiving water limitation for dissolved oxygen has been modified to be consistent with the Basin Plan.

CITY OF TRACY - WDR COMMENT #24: Page 12, Provision V.A.4. Temperature. The Regional Board should add language to clarify that these limitations derive from the temperature objectives in the Thermal Plan and that this limitation is subject to change as a result of the Temperature Study required in the Time Schedule Order that accompanies the draft permit. The Time Schedule Order includes a requirement to evaluate and implement alternatives to comply with the Thermal Plan or to clearly demonstrate that an exception to the Thermal Plan will not cause adverse impacts to aquatic life.

Request: Add language to clarify that these limitations derive from the temperature objectives in the Thermal Plan and that this limitation is subject to change as a result of the Temperature Study required in the Time Schedule Order that accompanies the draft permit.

RESPONSE: Language has been provided in the Fact Sheet (Attachment A, section V.A.1.d.) of the tentative Permit to clarify that the receiving water limitations are based on the Thermal Plan. There is already language in the aforementioned section of the Fact Sheet stating that the City may request an exception to the Thermal Plan and that the Order may be reopened to modify the receiving water limitations for temperature.

CITY OF TRACY - WDR COMMENT #25: Pages 12-13, Provision V.A.6.b. and V.A.13.f. MCLs. The tentative permit applies MCLs for radioactivity and pesticides directly to surface waters even though MCLs only apply to treated, served tap water.

Request: For the reasons provided herein and previously in comments related to the use of MCLs, Provisions V.A.6.b. and V.A.13.f. should be deleted.

RESPONSE: The receiving water has the designated beneficial use of municipal and domestic supply. The Basin Plan includes water quality objectives for radioactivity and pesticides requiring waters designated for use as domestic or municipal supply shall not contain concentrations of pesticides or radionuclides in

excess of the Maximum Contaminant Levels. The receiving water limitations implement the Basin Plan.

CITY OF TRACY - WDR COMMENT #26: Pages 14 and 17, Provisions VI.A.2.c. and VI.B.1. Unlawful Permit Modification. These provisions purport to require compliance with new regulatory effluent standards and prohibitions and new monitoring requirements even without an amendment of the permit. This requirement is of dubious validity because it prospectively incorporates by reference non-existent regulations, and improperly amends the permit without a formal amendment or public hearing and comment process. This is not allowed under State law. Delegation of activities related to modifications of waste discharge requirements to the Executive Office is not authorized. Some permits have included language that states that "The monitoring program may be modified by the Executive Officer at any time." The Regional Board's delegation powers only allow delegation of certain activities and only to the Board's Executive Officer. See Water Code §13223(a); see accord San Francisco BayKeeper, et al v. SFRWQCB, Order Granting Petition for Writ of Mandate and Statement of Decision, San Francisco Superior Court, Consolidated Case No. 500527 (Nov. 2003)(holding that the ability to make changes to a permit that will modify or enhance the substantive requirements of the permit cannot be delegated to the Executive Officer).

Request: Remove the second paragraph of Provision VI.A.2.c.

RESPONSE: The permit does not delegate authority to the Executive Officer, nor require compliance with prospective objectives. The permit includes a reopener. The permit does state that if a new federal law or regulation requires immediate compliance, dischargers would have to comply with that new law or regulation.

CITY OF TRACY - WDR COMMENT #27: Pages 17, 25, 27, D-7, Provision VI.A.2.a., p. and q., Provision VI.C.6.a. and VI.C.7.a. and c, Appendix D-7, Paragraph V.E., and Page E-8, Paragraph V.C. Duplicative or Potentially Conflicting Provisions. The permit contains two potentially conflicting requirements related to operator certification. *See* Provision VI.A.2.a. and Provision VI.C.6.a. One requires compliance with Title 23, Chapter 14 and one with Title 23, Chapter 26. The Regional Board should ensure that these provisions do not conflict, or remove the one that does not apply.

The permit contains no less than FOUR provisions requiring 24 hour reporting. This is unnecessary. *See e.g.*, Provisions VI.A.2.p. and Provision VI.C.7.c, Appendix D, Page D-7, Paragraph V.E., Appendix E, Page E-8, Paragraph V.C. Since this requirement is part of the Standard Provisions, all duplicative permit provisions should be removed.

Similarly, the permit contains two nearly identical requirements related to change in discharge location. *See* Provision VI.A.2.q. and Provision VI.C.7.a. Only one such provision should be included to avoid multiple "violations" being incurred for the same action.

Request: Remove duplicative or potentially conflicting requirements from the permit.

RESPONSE: The correct citation for the operator certification regulations is Title 23 CCR, Division 3, Chapter 26. The Regional Water Board Standard Provisions (Section VI.A.2.a.) has been corrected and Provision VI.C.6.a. has been deleted, because it is duplicative of the Regional Water Board Standard Provision.

Provision VI.C.7.c. has been deleted from the tentative Permit. However, the remaining sections regarding notification are necessary.

In addition, Provision VI.C.7.a. has been deleted from the tentative Permit, because it is duplicative with Provision VI.A.2.q.

CITY OF TRACY - WDR COMMENT #28: **Page 18, Provision VI.C.1.f. Dilution Credits.** This provision should be modified to include language stating "*Should a real-time flow monitoring station be installed in the vicinity of the discharge, and if real-time flow monitoring data from the station and supporting mathematical modeling analysis demonstrates that sufficient dilution flows are available in Old River, this Order may be reopened to allow dilution credits based on the real-time flow monitoring data.*"

Request: Add the concept of "supporting mathematical modeling analysis" as set forth above into this Provision.

RESPONSE: The City's request is reasonable and the suggested language has been added to the tentative Permit.

CITY OF TRACY - WDR COMMENT #29: **Page 18. Provision VI.C.1.g. Water Effects Ratios (WER) and Metal Translators.** Modify the language to state that if the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators for copper, iron, manganese, and aluminum, and if those study results are approved by the Executive Officer, this Order will be reopened to modify the effluent limitations for the applicable inorganic constituents.

Request: Change "may be reopened" to "will be reopened."

RESPONSE: We cannot guarantee that the Order will be reopened. However, we will make every effort to reopen and modify the Order based on available staff resources.

CITY OF TRACY - WDR COMMENT #30: Page 19, Provision VI.C.1.h., and Fact Sheet, Page F-64, Paragraph VII.B.1.h. Human Health Dilution Credits. It is unclear why this needs to be a provision in this permit. The Antidegradation Policy does not require that permits be reopened upon implementation of new treatment technologies to lower effluent limits to meet the new performance levels. If harmonic mean levels are

set to implement the existing water quality objectives, those same levels would apply despite the new technology.

Request: Remove Provision VI.C.1.h. and Paragraph VII.B.1.h. in Appendix F as not required and unnecessary.

RESPONSE: In the tentative Permit, the maximum allowable human health dilution credit is 20:1. However, the granting of the entire human health dilution credit could allocate an unnecessarily large portion of the receiving water's assimilative capacity for human carcinogens and could violate the Antidegradation Policy. In previous NPDES permits, the Regional Water Board has developed effluent limitations for human carcinogens based on the amount of dilution that would be required, such that water quality objectives in the receiving water would be met when effluent concentrations are at estimated maximum concentrations. However, since the City is making upgrades to the facility, some of which could significantly increase the formation of chlorinated by products, using the current plant performance to calculate the necessary dilution credit could result in effluent limitations for dichlorobromomethane and chlorodibromomethane that could not be met after the facility upgrades. Therefore, at this time the tentative permit would allow the entire human health dilution credit. However, because the permit could then allocate an unnecessarily large portion of the assimilative capacity for human carcinogens, the tentative permit includes a reopener to lower the dilution credit based on the performance of the upgraded facility.

CITY OF TRACY - WDR COMMENT #31: **Page 21, Provision VI.C.2.b. Best Practicable Treatment or Control (BPTC) of Salinity.** The Regional Board should modify the language to state: "To comply with Resolution 68-16, the treatment or control of discharges of waste to waters of the state must be sufficient to provide the minimum degradation of such waters that is feasible and consistent with the maximum benefit to the people of the State, but in no case can the discharge cause the exceedance of applicable water quality objectives."

Request: Insert requested language.

RESPONSE: The City's request is reasonable and the suggested language has been added to the tentative Permit.

CITY OF TRACY - WDR COMMENT #32: **Page 22, Provision VI.C.2.c. Electrical Conductivity (EC) Study.** In accordance with the requirements of CWC section 13000, the Regional Board should modify the language to state: "Based on these factors, the study shall recommend site-specific numeric values for EC that provide reasonable protection for Old River's agricultural supply use designation. The Regional Water Board will evaluate the recommendations, select appropriate values and adopt site-specific objectives through a Basin Plan amendment, reevaluate reasonable potential

for EC, and reopen the Order, as necessary, to include appropriate effluent limitations for EC."

Request: Insert requested language.

RESPONSE: The first proposed modification is appropriate, but the second proposed modification is not. It may not be necessary to adopt a Basin Plan amendment depending on the conclusions of the study and other information.

CITY OF TRACY - WDR COMMENT #33: **Page 23, Provision VI.C.4b. Compliance Schedules. Phase 1 Improvements.** The Regional Board should modify the language to state that "The permitted average daily discharge dry weather flow may increase to 10.8 mgd" upon compliance with the stipulated conditions. Further, the Regional Board should clarify that the average dry weather flow is defined as the flow for three consecutive dry weather months in a calendar year.

Request: Make suggested changes to permit language.

RESPONSE: The tentative Permit includes flow limits expressed as "average daily discharge flow." Provision VI.C.4.b. provides the conditions upon which the permitted average daily discharge flow may be increased from 9 million gallons per day (mgd) to 10.8 mgd. There is no need to neither modify the term used for the permitted flow nor provide additional clarification of how compliance with the flow limit will be determined. Compliance with the average daily discharge flow is already defined in Section VII.J. as follows:

"*The Average Daily Discharge Flow represents the daily average flow when groundwater is at or near normal and runoff is not occurring. Compliance with the Average Daily Discharge Flow effluent limitations will be measured at times when groundwater is at or near normal and runoff is not occurring.*"

CITY OF TRACY - WDR COMMENT #34: **Page 23, Provisions VI.C.4.b.i. and VI.C.4.c.i. Final Effluent Limits.** The language of these sections needs to include "The discharge shall be in compliance with Final Effluent Limitations IV.A.1., except where interim effluent limits apply."

Request: Add the clause "except where interim effluent limits apply" to the end of the first sentence in Provisions VI.C.4.b.i. and VI.C.4.c.i.

RESPONSE: The language in Provisions VI.C.4.b.i. and VI.C.4.c.i. is correct as stated in the tentative Permit. The Discharger must be in compliance with all final effluent limitations contained in Section IV.A.1. of the tentative Permit before the discharge flow may be increased.

CITY OF TRACY - WDR COMMENT #35: **Page 23, Provision VI.C.4.c. Compliance Schedules. Phase 2-4 Improvements.** The Regional Board should modify the language to state that "The permitted average ~~daily discharge~~ dry weather flow may increase to 16 mgd upon compliance" with the stipulated conditions. Further, the permit should clarify that the average dry weather flow is defined as the flow for three consecutive dry weather months in a calendar year.

Request: Make suggested changes to permit language.

RESPONSE: See response to CITY OF TRACY - WDR COMMENT #33, above.

CITY OF TRACY - WDR COMMENT #36: **Page 24, Provision VI.C.4d. Compliance Schedules for Final Effluent Limitations for Copper.** The Regional Board should modify the language by adding a sentence, as follows: "By May 18, 2010, or upon compliance with Special Provisions VI.C.4.b., whichever is sooner, the Discharger shall comply with the final effluent limitations for copper. Those final effluent limitations may be adjusted by either translator or Water Effect Ratios as described in Provision VI.C.1.g."

Request: Make suggested changes to permit language.

RESPONSE: The proposed language is unnecessary. The tentative Permit includes a reopener provision (Provision VI.C.1.g.) that allows the Order to be reopened in the event the City performs a translator and/or water effects ratio study.

CITY OF TRACY - WDR COMMENT #37: **Page 26, Provision VI.C.6.c. Collection System.** The City appreciates the removal of previously imposed requirements applicable to the collection system now that the collection system will be regulated separately under the statewide permit. However, the proposed language uses language that makes compliance with that separate permit a condition of this NPDES permit. To remedy this problem, the language of this provision must be amended to state: "Therefore, **by November 2, 2006**, the Discharger is required by that Order, not incorporated by reference herein, to ~~shall~~ apply for coverage under State Water Board Order 2006-0003 for operation of its wastewater collection system.

Request: Clarify that the statewide collection system general permit is not a condition to or incorporated by reference into this NPDES permit for the treatment plant.

RESPONSE: The provision has been modified as requested.

CITY OF TRACY - WDR COMMENT #38: **Pages 27-28, Provision VII. Compliance Determination.** The permit should not contain any provisions relating to how compliance will be determined as that is instruction for the Regional Board staff, not for the permit holder. Furthermore, the proposed language prejudges violations, which should not be done without the benefit of a hearing where evidence can be presented

and weighed. The City submitted draft language to the Regional Board used in another region and not objected to by the State Water Board or USEPA.

Request: Replace the proposed Compliance Determination language with the language above, which was previously provided to Regional Board staff.

RESPONSE: The compliance determination language included in the tentative Permit was prepared as part of the NPDES standardized template. The language has been reviewed by Regional Water Board staff and has been determined to be appropriate. No change will be made to the compliance determination section.

CITY OF TRACY - WDR COMMENT #39: **Page A-1, Definition of BPTC.** This definition includes the inaccurate statement that "Exceedance of a water quality objective in a Basin Plan constitutes 'pollution.'" This is not an accurate definition of "Pollution." Instead, this sentence should be removed or it should state: "Pollution is defined in CWC section 13050(l)."

Request: Remove or amend the last sentence as requested.

RESPONSE: The tentative Permit has been modified to address this comment.

CITY OF TRACY - WDR COMMENT #40: **Page A-2, Definition of Six-month Median Effluent Limitation.** Since the permit does not contain any six month median effluent limits, this definition is unnecessary and should be removed.

Request: Remove definition of six-month median effluent limitation.

RESPONSE: The definition for six-month median has been deleted from Attachment A of the tentative Permit.

CITY OF TRACY - WDR COMMENT #41: **Pages D-6 and D-9 to D-10, Paragraphs V.B.2.a. and b., and VII.A.** These paragraphs relate to Non-Municipal Facilities. Since these paragraphs do not apply, they should be removed from this municipal permit.

Request: Remove Paragraphs V.B.2.a. and b., and VII.A., and renumber remaining paragraphs.

RESPONSE: The provisions related to non-municipal facilities do not apply to the City's permit. However, to ensure consistency in NPDES permits the provisions will not be removed.

CITY OF TRACY - WDR COMMENT #42: **Page E-2, Paragraph II, Table of Monitoring Locations.** The monitoring station R-004 is not a convenient location unless the City is able to take samples from the bridge itself. Please change to state that samples can be taken "at from the Tracy Road Bridge."

Request: Change R-004 Monitoring Station to read that samples can be taken "at from the Tracy Road Bridge."

RESPONSE: When specifying the location of R-004 the intent was to allow the City to collect samples from the Tracy Road Bridge. The tentative permit has been revised to clarify that the City may collect samples from the bridge.

CITY OF TRACY - WDR COMMENT #43: **Page E-6. Paragraph IV.A.1., footnote 2.** This footnote states that the "Effluent Temperature monitoring shall be at the Outfall location." This footnote should replace Outfall location with M-001, or delete the note entirely. The City cannot continuously monitor the effluent temperature at the outfall in the river. This will mean that thermal compliance will be determined without considering the temperature change that might occur during transit from the plant to the receiving water, and may increase the probability of measuring violations.

Request: Change "Outfall location" to "M-001," or remove footnote.

RESPONSE: Regional Water Board staff agree that due to the remoteness of the outfall it is not reasonable to require continuous temperature monitoring at the outfall location. Footnote 2 has been removed from the tentative Permit.

CITY OF TRACY - WDR COMMENT #44: **Page E-6, Paragraph IV.A.1., footnote 5, and Page E-10, Paragraph VIII.A.1., footnote 2.** This footnote states that the "Detection limits shall be equal to or less than the lowest minimum level published in Appendix 4" of the SIP. This is not required by the SIP and should not be required here. The SIP allows the permit holder to chose an ML to use for compliance determination purposes. See SIP at Section 2.4.2. Only when there is no ML value below the effluent limitation may the RWQCB select the lowest ML value for inclusion in the permit. For this reason the footnote needs to add a clarifying clause at the end.

Request: Add "for any effluent limits where there is no ML value below the effluent limitation" at the end of footnote 5 on Page E-6 and footnote 2 on Page E-10 to be consistent with SIP Section 2.4.2.

RESPONSE: The footnotes in question have been modified as follows:

"For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP."

This change is in accordance with Section 2.4.2 of the SIP.

CITY OF TRACY - WDR COMMENT #45: **Page E-6, Paragraph V.A.3. Test Species.** Juvenile rainbow trout have always been allowed, both in Tracy's current permit and in the EPA method. Therefore, the City requests that the word "juvenile" be added as a clarifier to rainbow trout.

Request: Add "juvenile" before the term "rainbow trout."

RESPONSE: The age of the species has been deleted from the tentative Permit. The City is required to perform acute toxicity testing in accordance with EPA-821-R-02-012, Fifth Edition, which includes age requirements for the species.

CITY OF TRACY - WDR COMMENT #46: **Page E-10, Paragraph VIII.A.1.** A footnote should be added to the table related to bis(2-ethylhexyl)phthalate to coincide with the text on Pages F-32 and F-33, stating that after one year of monitoring, the monitoring will be reduced to annual if no data exceed the CTR criterion for this constituent.

Request: Insert a footnote for bis(2-ethylhexyl)phthalate stating that after one year of monitoring, the monitoring will be reduced to annually if no data exceed the CTR criterion for this constituent.

RESPONSE: The following footnote has been added to the table on page E-10, paragraph VIII.A.1.:

"*6 The Discharger shall monitor the receiving water quarterly for bis(2-ethylhexyl)phthalate for 12 months after the effective date of this Order. The Discharger shall use a method detection limit equal to or less than 1.8 µg/L, and shall use sample collection and handling techniques to reduce the possibility of bis(2-ethylhexyl)phthalate contamination. After one year of quarterly monitoring, if there have been no detectable concentrations exceeding the CTR criterion (1.8 µg/L), receiving water bis(2-ethylhexyl)phthalate monitoring shall be performed annually as part of the Priority Pollutants monitoring.*"

CITY OF TRACY - WDR COMMENT #47: **Page E-10, Paragraph VIII.A.1.** The reference to noting the presence or absence of bottom deposits should be removed as the River is over 20 feet deep and bottom deposits are not readily visible.

Request: Remove reference to "c. bottom deposits" on Page E-10.

RESPONSE: Old River is not 20 feet deep across the entire cross section. The river channel slopes toward the banks. If the bottom is not visible at the time of monitoring, then the Discharger can report this on the discharger self-monitoring report.

CITY OF TRACY - WDR COMMENT #48: **Page F-9, Table F-1.** The included Mercury Average Mass Loading (lbs/day) is incorrect. The monthly mass limit is 0.042 pounds per month at ADWF of 9 mgd.

Request: Amend mercury average mass loading figure with 0.042 pounds per month.

RESPONSE: Table F-1 has been updated to include the correct mass loading for mercury.

CITY OF TRACY - WDR COMMENT #49: **Page F-10, Paragraph III.A.5 and Page F-39, Paragraph IV.C.3.v.** Inconsistent Statements. On Page F-10, it states that "no effluent limitations are included in this permit pursuant to CWC section 13263.6(a)." However, on Page F-39, the Fact Sheet states that "Effluent limitations for nitrate and nitrite are required pursuant to CWC section 13263.6(a)." Both cannot be correct.

Request: Remove one of the inconsistent statements regarding CWC §13263.6(a) from the Fact Sheet.

RESPONSE: The reference to CWC section 13263.6(a) is incorrect in paragraph IV.C.3.v. and has been removed from the tentative Permit.

CITY OF TRACY - WDR COMMENT #50: **Page F-10, Paragraph III.A.6. Stormwater Requirements.** This section incorrectly states that the Industrial general permit regulates storm water discharges from "municipal sanitary sewer systems." Instead, this should read "wastewater treatment plant facilities."

Request: Replace "municipal sanitary sewer systems" with "wastewater treatment plant facilities."

RESPONSE: The City's request is reasonable and the suggested modification has been made to the tentative Permit.

CITY OF TRACY - WDR COMMENT #51: **Page F-12, Paragraph IV.** The first full paragraph on this page states that "Federal Regulations mandate numerical effluent limitations." This is incorrect. *See Communities for a Better Environment*, 109 Cal.App.4th at 1104-5. In fact, case law suggests that Congress did not intend numeric effluent limitations to be the requisite type of limitation on pollution discharges under the CWA, but intended a flexible approach, including alternative control strategies. (*Natural Resources Defense Council, Inc. v. Costle* (D.C. Cir. 1977) 568, F.2d 1369, 1380 & fn. 21, Communities for a Better Environment, 109 Cal.App.4th at 1105).

The State Water Board itself ruled in 1991 that "numeric effluent limitations are not legally required" under federal law. (*In the Matter of the Petition of Citizens for a Better Environment, Save San Francisco Bay Association, and Santa Clara Valley Audubon Society*, Order No. WQ 91-03, May 16, 1991). While the State Board conceded that "in

most cases, the easiest and most effective chemical-specific limitation would be numeric," the State Board ultimately ruled that "there is no legal requirement that effluent limitations be numeric." (Id. (emphasis added); see accord Communities for a Better Environment, 109 Cal.App.4th at 1105).

Request: Remove reference to federal legal requirement for numeric effluent limitations. To the extent State law requires numeric limits, this requirement is more stringent than federal law and requires an analysis be performed under CWC sections 13263 and 13241.

RESPONSE: It is not correct that the use of numeric limits is more stringent than federal law, however, it is correct that numeric limits may not be necessary in all circumstances. The last sentence in the last paragraph of Section IV of the Fact Sheet (Attachment F) has been deleted from the tentative Permit.

CITY OF TRACY - WDR COMMENT #52: **Page F-12, Paragraph IV.A.1.** The citation to the U.S. v. City of Toledo decision should be removed. This case has no precedential value in the Ninth Circuit.

Request: Remove last sentence from F-12 that carries over to Page F-13 as not applicable in California.

RESPONSE: The citation to U.S. v. City of Toledo is not necessary in this permit and has been removed.

CITY OF TRACY - WDR COMMENT #53: **Page F-20, Paragraph VI.C.2.b.v.** The last sentence in the first paragraph states that "The SIP does not apply to non-priority pollutants, in which case the more stringent of the Basin Plan or USEPA guidance applies." The SIP and the Basin Plan are the only things that legally apply. USEPA guidance cannot trump an adopted State regulation in the form of the SIP or a Basin Plan, particularly where USEPA has approved of that Basin Plan.

Request: Amend this paragraph to read: ". . . Primary policy and guidance on determining mixing zone and dilution credits is provided by the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (State Implementation Policy or SIP), ~~the USEPA Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001)(TSD),~~ and the Basin Plan. For NPDES Permits in California, the SIP policy supersedes the USEPA guidance for priority pollutants, to the extent that it addresses a particular procedure. The SIP does not apply to non-priority pollutants, in which case the ~~more stringent of the~~ Basin Plan ~~or USEPA guidance~~ applies, to the extent that it addresses a particular procedure. If no procedure applies in the SIP or the Basin Plan, then the Regional Board may use the USEPA Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001)(TSD) as guidance."

RESPONSE: The Regional Water Board staff agrees that clarity is needed in this paragraph, but does not agree with the proposed modification. Modifications have been made in the paragraph to make it more clear.

CITY OF TRACY - WDR COMMENT #54: **Page F-28, Paragraph V.C.3.b.** This paragraph indicates that USEPA has developed water quality criteria guidance. Where such guidance exists, the proper procedure is to develop and adopt numeric water quality objectives into the Basin Plan pursuant to the requirements of 33 U.S.C. §1313(c)(2); CWC §13241. Narrative objectives cannot be relied upon for eternity when guidance criteria exist.

Request: Adopt site specific objectives for all constituents that USEPA has promulgated criteria guidance in accordance with 33 U.S.C. §1313(c)(2) and CWC §13241.

RESPONSE: The tentative Permit includes effluent limits and other requirements based on USEPA water quality criteria as appropriate. The Regional Water Board conducts a Triennial Review of the Basin Plan to consider revisions to the Basin Plan and occasionally adopts new water quality objectives. USEPA adopted the California Toxics Rule that adopted many of the water quality criteria as promulgated standards.

CITY OF TRACY - WDR COMMENT #55: **Pages F-29, F-30, F-33, F-36, F-37, F-38, F-48, Paragraphs V.C.3.b., d., k., r., s., t., u., v., ff.** The Fact Sheet states that the discharge has the reasonable potential to violate the Basin Plan's narrative toxicity or narrative chemical constituents objectives for several constituents. The permit or fact sheet must include evidence to demonstrate that a constituent exceeds these narrative objectives, as applicable to the local conditions. In addition, and notwithstanding the above comments, the permit must include interim limits within the permit instead of in an attached TSO. Recent binding California case law held that where a regional board newly interprets a narrative objective in the Basin Plan, the regional board may then include an effluent limit and a compliance schedule as authorized under that Plan. In this case, the Regional Board's Basin Plan allows a compliance schedule of up to 10 years. Thus, the Basin Plan authorizes the schedule of compliance to be including within the amended NPDES permit. See accord *Communities for a Better Environment v. State Water Resources Control Board*, 34 Cal.Rptr.3d 396, 410 (2005).

Request: Provide evidence that narrative objectives have the reasonable potential to be exceeded based on local conditions. Remove all interim limits from the TSO that are required through implementation of narrative objectives and place them inside the NPDES permit.

RESPONSE: The tentative Permit complies with applicable law in determining effluent limits, including 40 CFR section 122.44(d). It is consistent with those regulations and the Basin Plan's "Policy for Application of Water Quality Objectives" to use USEPA's water quality criteria to develop effluent limits. The water quality

criteria are based on scientific studies that conclude that a particular constituent is toxic under the parameters as set forth in the criteria. With respect to compliance schedules, the Regional Water Board has discretion to include a compliance schedule in a permit where it is basing the effluent limit on a "new interpretation" of the water quality criteria or objective. The Regional Water Board is not required to include a compliance schedule in the permit. Regional Water Board staff is not proposing to make a change. The TSO and permit are consistent with past Regional Water Board practices.

CITY OF TRACY - WDR COMMENT #56: **Page F-37, Paragraph V.C.3.r. Iron.** There is a typographical error on the 7th line from top of page. The reference to a "MDEL of 300 mg/l" should be "300 ug/l" for iron.

Request: Correct the typographical error.

RESPONSE: The typographical error has been corrected.

CITY OF TRACY - WDR COMMENT #57: **Page F-46, Paragraph V.C.3.aa.vi. Salinity Sources.** The City suggests the following changes to the paragraph related to the discharges from Leprino:

Leprino discharges an additional salt load to the Facility. Leprino provides preliminary treatment of its wastewater to reduce the high organic loading typical of food processing waste. However, no specific treatment is provided to reduce the ~~high~~ salt loading. ~~The~~ Leprino's pre-treated industrial wastewater is discharged to the Discharger's industrial treatment facility, which includes 52 acres of unlined ponds, and is returned to the main treatment facility at the primary sedimentation tanks. The 52 acres of ~~industrial~~ ponds provide significant residence time. While in the ~~industrial~~ ponds, salts ~~are~~ may be concentrated through the evaporation of the wastewater. In addition, ~~the Discharger~~ Leprino wastes may contain high TDS process water from the main treatment facility to the ~~industrial~~ ponds, such as digester supernatant, pump seal water, boiler cooling water, groundwater from construction de-watering activities, etc. ~~Based on data provided by the Discharger from January 2003 through December 2004, the~~ The TDS of Leprino's pretreated industrial wastewater discharged to the ~~industrial~~ ponds is primarily in the range of 1500 mg/L to 2300 mg/L. ~~has an average TDS of about 1000 mg/L, but triples to an average TDS of over 3000 mg/L by the time the wastewater is returned to the main facility. This results in a significant salt load to the main treatment facility, and ultimately to Old River.~~ Leprino's pre-treated industrial wastewater is then commingled with Discharger's water in the 52 acres of ponds and discharged to the main treatment facility.

Request: Make the suggested changes to the paragraph above.

RESPONSE: Some of the suggested language changes have been made to the tentative Permit. However, the suggestions for modifying the last two sentences will not be incorporated into the Order. The last two sentences document pond monitoring data provided by the City from January 2003 through December 2004.

CITY OF TRACY - WDR COMMENT #58: Page F-55. Paragraph V.C.5.a. Acute Aquatic Toxicity. The City questions whether a reasonable potential analysis has been performed prior to inclusion of toxicity requirements in the draft permit. Under federal law, both WET requirements and specific chemical effluent limits are not required. See 40 C.F.R. §122.44(d)(1)(iv) and (v). If these requirements are maintained, then the City requests the changes noted below. Juvenile rainbow trout have always been allowed, both in Tracy's current permit and in the EPA method and this section should recognize that fact and not require the use of larval fathead minnows.

a. **Acute Aquatic Toxicity.** The Basin Plan states that "…*effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate…*". Effluent limitations for acute toxicity have been included in this Order. WDR Order No. 96-104 required compliance with the testing procedures contained in EPA/600/4-90/027F. ~~EPA/600/4-90/027F required the use of larval fathead minnows. Because the Discharger was not able to successfully perform this test with their flow-through bioassay, the Discharger was allowed to use juvenile rainbow trout.~~ In October 2002, the USEPA promulgated EPA-821-R-02-012, revising the previous edition. ~~The new USEPA procedure requires the use of larval stage (0 to 14 days old) test species. Larvae are much more sensitive to ammonia levels than the juvenile species. Compliance with the new USEPA procedure for the acute bioassay test constitutes a more stringent acute toxicity limitation than was previously allowed.~~ This Order requires that the Discharger comply with the new USEPA procedure, but allows the Discharger to remove ammonia-related toxicity prior to conducting acute toxicity tests until July 31, 2008, or until completion of Phase 1 Improvements, at which time the Discharger must fully nitrify and denitrify the wastewater and must implement the test without modifications to eliminate ammonia toxicity. The time schedule is authorized to be included in the Monitoring and Reporting Program based on 40 CFR section 122.47.

Request: Perform a reasonable potential analysis for toxicity and if toxicity requirements are maintained, make the suggested changes to the paragraph above.

RESPONSE: The suggested language changes have been made to the tentative Permit. The Basin Plan states that "*…effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate…*". The discharge has the reasonable potential to discharge toxic pollutants, therefore, an effluent limit for acute biotoxicity is necessary and appropriate.

CITY OF TRACY - TSO COMMENT #1: The City strongly urges the Regional Board not to adopt this Time Schedule Order and to instead include any requirements

suggested therein in the permit instead. Ample compliance schedule authority exists in the Basin Plan and Thermal Plan to allow the Regional Board to place requirements for temperature and for constituents imposed based upon a narrative objective in the Basin Plan (e.g., aluminum, ammonia, nitrate, and nitrite) within the permit. See *Communities for a Better Environment v. State Water Resources Control Board*, 34 Cal.Rptr.3d 396, 410 (2005).

Request: Move all requirements of the TSO into the Permit and delete the need to adopt a TSO. Make changes requested in the City's cover letter to these comments.

RESPONSE: See response to City of Tracy - WDR Comment #55. The conditions with respect to temperature have been deleted from the Time Schedule Order since the City is in compliance with the temperature conditions.

CITY OF TRACY - TSO COMMENT #2: There is a typographical error in Paragraph 2 of page 1. The reference to temperature should be in section V.A.4 (not 6). On page 5, the same error is contained in Paragraph 1. The reference to Receiving Water Limitations V.A.6.a should be V.A.4.a.

RESPONSE: The typographical errors have been corrected.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

CSPA –COMMENT #1: The Order does not contain a protective or legal effluent limit for EC.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

CSPA –COMMENT #2: The antidegradation analysis is woefully inadequate and inconsistent with the state's antidegradation policy.

RESPONSE: One of CSPA's concerns with the antidegradation analysis in the tentative Permit is with regards to oxygen demanding substances, due to estimated increases in the mass loadings of nitrate and phosphorus. First, the previous Order does not limit nitrate, where as, the tentative Permit includes an effluent limitation for nitrate of 10 mg/L to implement the Basin Plan's narrative chemical constituents objective. The estimated future loading for nitrate was based on the final effluent limitation. The actual loading is likely to be much less due to construction of facilities to denitrify the effluent. Secondly, when considering all oxygen demanding substances, there is a significant decrease in the mass loading of these substances. The Discharger is constructing tertiary filtration and facilities to nitrify and denitrify the wastewater, which will remove the majority of oxygen demanding substances. The total expected future mass loading of all oxygen demanding substances (i.e. BOD, TSS, ammonia, nitrate, nitrite, and phosphorus) is expected to decrease by more than 1000 lbs/day.

With regards to salinity, the Staff Report provides a detailed analysis of the compliance and permitting issues. The Regional Water Board has several options to consider.

CSPA –COMMENT #3: The flow limitations in the Order fail to comport with federal regulations.

RESPONSE: This comment is based on the previous tentative Order issued in December 2005 and is no longer applicable. The effluent limitations for flow have been modified based on CSPA's previous comments.

CSPA –COMMENT #4: The limitation for acute toxicity is inconsistent with Basin Plan and federal requirements.

The focus of this comment is on the appropriateness of the acute toxicity effluent limitation (Effluent Limitation No. IV.A.1.f.), which states:

"f. Acute Whole Effluent Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

i. 70%, minimum for any one bioassay; and
ii. 90%, median for any three consecutive bioassays."

CSPA contends that the acute toxicity effluent limitation is inappropriate because allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to an exceedance of the Basin Plan's narrative water quality objective for toxicity.

RESPONSE: The acute toxicity effluent limitations are consistent with numerous NPDES permits issued by the Central Valley Regional Water Board and throughout the state and are appropriate. The tentative Permit as a whole contains several mechanisms designed to ensure that the discharge does not cause toxicity in the receiving water. The Order contains Receiving Water Limitation V.A.7., which proscribes the discharge from causing toxicity in the receiving water. Additionally, end-of-pipe effluent limits are included for all toxic pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Where appropriate, these limits are developed based on aquatic life toxicity criteria.

In addition to chemical-specific effluent limitations, the tentative Permit requires chronic whole effluent toxicity (WET) testing that identifies both acute and chronic effluent toxicity. WET testing is necessary because chemical-specific effluent limitations do not address synergistic effects that may occur when the effluent mixes with receiving waters, synergistic effects of mixtures of chemicals, or toxicity from toxic pollutants for which there are no aquatic life toxicity criteria. To address toxicity detected in WET testing, the tentative Permit includes a provision that requires the City to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exhibits a pattern of toxicity, the City is required to initiate a Toxicity Reduction Evaluation and take actions to mitigate the impact of the discharge and prevent reoccurrence of toxicity.

The acute toxicity effluent limitations establish additional thresholds to control toxicity in the effluent: survival in one test no less than 70% and a median of no less than 90% survival in three consecutive tests. Some in-test mortality can occur by chance. To account for this, the test acceptability criteria for the acute test allows ten percent mortality (requires 90% survival) in the control. Thus, the acute toxicity effluent limitation allows for some test variability, but imposes ceilings for exceptional events (i.e. 30% mortality or more), and for repeat events (i.e., median of three events exceeding mortality of 10%).

CSPA –COMMENT #5: The Order fails to contain an effluent limitation for chronic toxicity.

RESPONSE: The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region[3] that contained numeric chronic toxicity effluent limitations. As a result of this petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012, "*In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits.*" The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process.

Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. Therefore, the tentative Permit requires that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 C.F.R. 122.44(k). The tentative Permit includes Provisions VI.C.2.a., which contains a numeric chronic toxicity monitoring trigger and explicit protocols for accelerated monitoring and toxicity reduction evaluation implementation if a pattern of effluent toxicity is observed. This provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

CSPA –COMMENT #6: The Order violates state and federal endangered species acts.

RESPONSE: CSPA provided the following comments, "…*the Order allows acute toxicity, fails to limit chronic toxicity and, as we discuss below, includes effluent limits that are not protective of listed species. The Order is likely to result in the illegal "take" of listed species and will likely result in the destruction or adverse modification of critical habitat in violation of Section 9 of the federal Endangered Species Act (ESA).*" CSPA further states the following regarding the purported inadequate effluent limitations, "*The inadequate toxicity, temperature, ammonia, and dissolved*

[3] In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

oxygen limits in the Order should be revised to be fully protective of listed species." Regional Water Board staff disagree with these statements. The tentative Permit contains numeric effluent limitations for acute toxicity, narrative limitations for chronic toxicity, and a receiving water limitation for toxicity that states the discharge shall not cause "*Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.*" The tentative Permit also contains water quality-based effluent limitations for ammonia, dissolved oxygen, and temperature. Furthermore, the future discharge, which is nearly twice the volume of the current discharge, will contain significantly lower mass loadings of oxygen demanding substances. Due to the new effluent limitations for BOD, TSS, ammonia, nitrate, and nitrite, the oxygen demanding substances in the discharge will be reduced by more than 1000 lbs/day.

For clarity, the Regional Water Board staff will propose the following late revision to be included in the Permit at section III.A.4. of the Fact Sheet (Attachment F):

"*This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.*"

CSPA –COMMENT #7: Temperature limitations violate the Basin Plan, Thermal Plan and federal regulations.

RESPONSE: CSPA contends that the temperature limitations violate the Basin Plan, Thermal Plan and federal regulations. Regional Water Board staff disagree with this comment. The temperature effluent limitations and receiving water limitations in the tentative Permit are applied based on the Thermal Plan's water quality objectives for temperature. Monitoring data indicate that the Discharger is in compliance with the temperature effluent and receiving water limitations. However, modeling performed by the City at the future flow of 16 mgd shows that the discharge may exceed a requirement of the Thermal Plan. Before increasing the discharge, the tentative Permit requires the City to demonstrate compliance with the temperature effluent and receiving water limitations, or obtain an exception from the Thermal Plan.

CSPA –COMMENT #8: The Order allows degradation of groundwater.

RESPONSE: CSPA comments that the use of asphaltic concrete paved sludge drying beds does not meet best practicable treatment or control (BPTC), because

the liners are not completely impermeable and would allow groundwater degradation. The tentative Permit only regulates the surface water discharge to Old River. Separate waste discharge requirements are being developed to regulate discharges to groundwater, including discharges from the sludge drying beds. Pending development of the separate waste discharge requirements for land disposal, the parts of the current NPDES permit relevant to land discharge will remain in effect.

CSPA –COMMENT #9: Failure to include an effluent limitation for dissolved oxygen violates federal regulations.

RESPONSE: This comment is based on the previous tentative Order issued in December 2005 and is no longer applicable. CSPA provided this comment in response to the previous tentative Order, which did not include an effluent limitation for dissolved oxygen (DO). Regional Water Board staff agree that a DO effluent limitation is necessary, due to low DO concentrations in the receiving water. At times the receiving water does not comply with the Basin Plan's water quality objective for DO. Since the discharge contains oxygen demanding substances (e.g. BOD, TSS, ammonia, and nitrogen), the effluent has a reasonable potential to cause, or contribute, to an in-stream excursion of the Basin Plan's water quality objective for DO. The current tentative Permit includes an effluent limitation for DO, based on the Basin Plan's Delta numeric site-specific water quality objective for DO concentration.

CSPA –COMMENT #10: The ammonia limitation does not comply with the Basin Plan's narrative toxicity objective and fails to employ a "worst case" scenario.

RESPONSE: CSPA is concerned with the methodology used to establish design pH values for determining the acute and chronic water quality criteria for ammonia, which are ultimately used for the calculation of water quality-based effluent limitations (WQBELs). The methodology used for development of WQBELs for ammonia has been reviewed and approved by USEPA Region IX. It is the same procedure used in development of WQBELs for ammonia in the City of Stockton Regional Wastewater Control Facility (RWCF) NPDES permit renewal. USEPA Region IX provided the following comments regarding the methodology in its 22 March 2002 letter, "*We are pleased to see that limits have been established for ammonia…EPA concurs with the methodology staff has used in the selection of pH values both for the determination of RP, and for the establishment of WQBELs.*" The receiving water conditions in Old River for the City of Tracy discharge and the San Joaquin River in the vicinity of the Stockton RWCF discharge are very similar. Therefore, staff used the same procedure for calculating WQBELs for ammonia.

CSPA –COMMENT #11: The Order fails to include limits for methylmercury.

RESPONSE: CSPA contends that an interim effluent limitation for methylmercury should be included in the tentative Permit and a reopener should be included to allow inclusion of mercury effluent limitations upon adoption of a mercury TMDL. The 303(d) listing of the Delta is for mercury. Although Regional Water Board staff is developing a methylmercury TMDL, the TMDL is still under development and has not been adopted by the Regional Water Board. Pursuant to Section 2.1.1. of the SIP, the tentative Permit contains an interim mass limitation on total mercury to maintain current loadings pending TMDL development. The tentative Permit also contains a reopener provision (Section VI.C.1.c.) to include effluent limitations for mercury (total or methylmercury) upon adoption of a TMDL.

CSPA contends that monitoring for methylmercury should be included in the tentative Permit to support the mercury TMDL. Effluent and receiving water monitoring for total mercury is included in the tentative Permit for the purpose of determining compliance with the Order. Methylmercury monitoring is also warranted. The monitoring will assist in the development of the TMDL and it will be useful in the implementation of the TMDL after adoption. Therefore, Regional Water Board staff will propose new influent, effluent, and receiving water monitoring for methylmercury as a late revision to the tentative Permit.

CSPA contends that the method for determining compliance with the total mercury interim effluent limitation allows the Discharger to increase mercury loadings to Old River. CSPA asserts that the sum of peak mercury concentrations and the total monthly discharge flow should be used for the calculation. The conversion from concentration to mass is performed using the following equation:

Concentration (mg/L) x Flow (million gal/mo.) x 8.34 (conversion factor) = Mass (lbs/mo.)

The tentative Permit requires monthly mercury monitoring, so in most cases the total mass loading of mercury would be calculated using the concentration of a single sample and the total monthly flow. When more than one sample is collected during a month, averaging the constituent concentrations is appropriate for calculation of the total monthly loading, because it would represent the best estimation of mercury concentrations discharged for the month. If the constituent concentrations were summed, it would significantly overestimate the total monthly loading, due to the summing of concentrations prior to multiplication by the total discharge flow.

CSPA –COMMENT #12: Monitoring requirements are inadequate.

RESPONSE: CSPA contends that methylmercury monitoring should be required in the tentative Permit. See Regional Water Board response to CSPA – Comment #11, above.

CSPA also argues that 24-hour composite samples for metals and semi-volatile constituents and continuous monitoring for pH, EC, and turbidity should be required

in the tentative Permit. As a late revision to the permit, Regional Water Board staff will propose that the monitoring for metals be changed to require 24-hour composite samples. The only semi-volatile constituent that requires regular monitoring is bis(2-ethylhexyl)phthalate. It is not appropriate to use 24-hour composite samples for bis(2-ethylhexyl)phthalate monitoring due to possible contamination from 24-hour composite samplers. Therefore, the sample type for bis(2-ethylhexyl)phthalate will remain as a grab sample.

The tentative Permit requires continuous monitoring for pH and turbidity. CSPA argues that continuous EC monitoring is necessary for the required EC studies in the tentative Permit. The tentative Permit requires weekly monitoring for EC, which is necessary to determine compliance with the interim effluent limitations for EC. The Discharger may be required to monitor more frequently to adequately perform the required studies. The Discharger is required to submit workplans for the EC studies. The frequency of EC monitoring necessary for the studies will be evaluated at that time.

CSPA –COMMENT #13: The Order states that the action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of Division 13 of the Public Resources Code in accordance with Section 13389 of the CWC. The action to adopt an NPDES permit may be exempt from CEQA; however the tentative Permit discusses significant expansion of the wastewater treatment plant, which is not exempt from CEQA.

Later in the Fact Sheet, in discussing the temperature impacts of the discharge the Order discusses a CEQA document that was completed for the wastewater treatment plant expansion. The CEQA discussion within the Order must be expanded to discuss all of the water quality impacts discovered during the CEQA analysis.

The Discharger confirms that they exceed the thermal plan 3-months out of each year. The Order states Discharger has proposed mitigation measures in their EIR, yet no such mitigation measures are identified or discussed in the Order. Intensive sampling for four-years is not mitigation.

RESPONSE: The tentative Permit includes an antidegradation analysis, in accordance with State Water Board's Antidegradation Policy (Resolution 68-16), that considered the water quality impacts due to the expanded discharge. The Discharger's Environmental Impact Report was considered in this evaluation. The tentative Permit requires tertiary treatment or equivalent, which is a high level of treatment that is considered best practicable treatment or control (BPTC) for most constituents in the wastewater and will result in attaining water quality standards applicable to the discharge.

With regards to temperature, the discussion in the Fact Sheet about the discharge causing an exceedance of a Thermal Plan requirement is based on modeling at the expanded discharge flow of 16 mgd. Effluent and receiving water limitations are

included in the tentative Permit that implement the Thermal Plan. The Discharger is capable of complying with these limitations at the current discharge flow of 9 mgd. The Discharger must demonstrate compliance with these limitations before the discharge flow to Old River may be increased or shall have obtained an exception to the Thermal Plan requirements, which would necessitate modification of the limitations.

CSPA –COMMENT #14: A significant number of effluent limitations are not limited for mass.

RESPONSE: Federal regulations at 40 CFR 122.45(f)(1) and (2), states the following regarding effluent limitations for publicly owned treatment works:

"(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass ***except****:*

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; *or*

(iii) If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations." (emphasis added)

The tentative Permit includes effluent limitations expressed in terms of both mass and concentration for some constituents. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g. CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass limitations are necessary for some constituents to ensure protection of the beneficial uses of the receiving water and/or to ensure the proper operations of the treatment facilities. Therefore, in the tentative Permit, effluent limitations for oxygen-demanding substances and bioaccumulative constituents have limitations in terms of mass. However, for some constituents there are no water quality benefit for limiting the mass, thus, only limitations in terms of concentration were included in the tentative Permit.

CSPA –COMMENT #15: Reasonable potential exists for bis(2-ethylhexyl)phthalate and an effluent limitation is required.

RESPONSE: Based on 4 monitoring samples performed by the Discharger from January 2002 through December 2002, bis(2 ethylhexyl)phthalate was detected, but not quantified in all four samples. The concentration was estimated in each case, with a maximum estimated concentration of 2 µg/L. The estimated concentration exceeds the CTR criterion for bis(2 ethylhexyl)phthalate (1.8 µg/L). However, without quantifiable detections, it is unclear if the discharge has a reasonable potential to cause or contribute to an in-stream excursion of the CTR criterion. In accordance with Step 8 of Section 1.3 of the SIP, this Order requires monthly monitoring of bis(2 ethylhexyl)phthalate for one-year using improved sample collection and handling techniques and a method detection level below the CTR criterion. Section IV.C.3.h. of Attachment F states that, "*If detectable concentrations of bis(2 ethylhexyl)phthalate exceeding the CTR criterion occur during the first year of monitoring, this Order shall be reopened to include an effluent limitation for bis(2 ethylhexyl)phthalate.*"

CSPA –COMMENT #16: The Order allows the receiving water limit for turbidity to expire.

RESPONSE: The tentative Permit contains effluent and receiving water limitations for turbidity. The receiving water limitations are effective immediately, while the effluent limitations become effective until 1 August 2008, which is when Title 22 disinfection requirements are required in the tentative Permit. At the time the effluent limitations for turbidity become effective, the receiving water limitations would no longer be necessary. Therefore, the tentative Permit terminates the turbidity receiving water limitations at that time. The turbidity effluent limitations are required to meet Title 22 disinfection requirements, which are more stringent than the Basin Plan water quality objective for turbidity.

CSPA –COMMENT #17: The Order allows 100% use of the assimilative capacity of the receiving stream without an adequate analysis of flow rates.

RESPONSE: CSPA argues that the SIP requires receiving water flow monitoring for allowance of a human health dilution credit. While real-time flow monitoring is necessary to to assess compliance with water quality objectives to prevent acute and chronic aquatic toxicity due to the short averaging periods (i.e. 1-hr, 4-day, and 30-day). Water quality objectives to protect human health rely on a long averaging period (i.e. 70 years). Therefore, we believe modeled flows can be used to calculate a human health dilution credit. The tentative Permit allows a human health dilution credit based on modeled receiving water flows provided by the Discharger. Modeling was performed for a 16-year period, from 1975-1991, with reasonable worst-case assumptions for the operation of South Delta Improvements Program's

operable gates. The estimated flow was used to calculate a dilution credit using the method prescribed in Table 3 of the SIP.

CSPA –COMMENT #18: The Order's compliance schedule misapplies Title 22 disinfection requirements.

RESPONSE: The comment is not specific enough to provide a response. The Order requires tertiary treatment or equivalent, which will result in compliance with Title 22 requirements.

CSPA –COMMENT #19: The Order illegally allows an unpermitted discharge to Sugar Cut Slough.

RESPONSE: CSPA contends that the City's industrial ponds are discharging to Sugar Cut Slough and the City is required to submit a report of waste discharge (ROWD). The groundwater discharges from the industrial ponds and the need for a study to evaluate a possible surface water discharge to Sugar Cut Slough will be addressed in separate waste discharge requirements. The City submitted a ROWD on 1 November 2000.

CSPA – Supplemental Comment #1: CSPA comments that federal regulations at 40 CFR section 124.12(c) requires the Regional Water Board to accept written comments up to the time of a hearing.

Response: The commenter incorrectly interprets the federal regulations. The federal regulations that apply to NPDES permits specifically identify which regulations apply to states and which regulations do not apply to states. According to 40 CFR section 123.25(a), the states must have legal authority to implement certain listed regulations and may modify those regulations to make them more stringent. Section 124.12(c) is not listed in section 123.25(a) as a regulation that the state is required to implement. It must implement only section 124.12(a). With respect to acceptance of comments, the Regional Water Board must implement 40 CFR section 124.10(b), which requires the state to allow at least 30 days of public comment, but does not require the state to allow public comment up to the date of the hearing.

CSPA – Supplemental Comment #2: The Regional Water Board has no authority to issue compliance schedules for CTR constituents and the proposed compliance schedules and interim effluent limits are illegal.

The commenter states that the CTR provisions in 40 CFR 131.38(e) allowing compliance schedules and interim effluent limitations for CTR constituents have expired. Specifically, the commenter cites 40 CFR 131.38(e)(8) which states, "*[t]he provisions in this paragraph (e), Schedules of compliance, shall expire on May 18,*

2005." Therefore, the commenter concludes that the compliance schedules and interim effluent limitations established in the tentative Permit are illegal and must be removed.

Response: The SIP is the governing policy in California for implementing the CTR and it allows compliance schedules. USEPA approved the section of the SIP concerning compliance schedules. Although the CTR provisions for compliance schedules expired, that does not preclude the State Water Board from establishing its own version of compliance schedules since the SIP is intended to implement the CTR. The SIP allows compliance schedules that are short as practicable but in no case (1) allows more than 5 years to come into compliance with CTR-based effluent limitations and (2) allows the compliance schedule to extend beyond 10 years from the effective date of the SIP (18 May 2000) to establish and comply with CTR-based effluent limitations. The tentative Permit, therefore, includes a time schedule to comply with CTR-based effluent limitations by 18 May 2010 (i.e., 10 years from SIP effective date). In addition, the tentative Permit requires the discharger to (1) provide a justification for the compliance schedule in accordance with Section 2.1 of the SIP, (2) comply with interim effluent limitations (as required by the SIP), and (3) submit quarterly progress reports.

CSPA – Supplemental Comment #3: CSPA comments that the Regional Water Board does not have authority under the Clean Water Act to include compliance schedules in NPDES permits for water quality based effluent limits. Clean Water Act section 301(b)(1)(C) establishes a deadline of 1 July 1977, even for new standards established after that deadline. The Clean Water Act only allows compliance schedules in limited circumstances. Effluent limitations may not be less stringent than required by the Clean Water Act.

Response: The commenter is correct that in most circumstances the Regional Water Board may not include compliance schedules in NPDES permits. In general, an NPDES permit must include final effluent limitations that are consistent with Clean Water Act section 301 and with 40 CFR 122.44(d). There are exceptions to this general rule. The State Water Board has concluded that where the Regional Water Board's Basin Plan allows for schedules of compliance and the Regional Water Board is newly interpreting a narrative standard, it may include schedules of compliance in the permit to meet effluent limits that implement a narrative standard. See *In the Matter of Waste Discharge Requirements for Avon Refinery (State Board Order WQ 2001-06 at pp. 53-55)*. See also *Communities for a Better Environment et al. v. State Water Resources Control Board, 34 Cal.Rptr.3d 396, 410 (2005)*. The Basin Plan for the Sacramento and San Joaquin Rivers includes a provision that authorizes the use of compliance schedules in NPDES permits for water quality objectives that are adopted after the date of adoption of the Basin Plan, which was 25 September 1995 (See Basin Plan at page IV-16). Consistent with the State Water Board's Order in the CBE matter, the Regional Water Board has the discretion to include compliance schedules in NPDES permits when it is including an effluent limitation that is a "new interpretation" of a narrative water quality objective. This conclusion is also consistent with the United States Environmental Protection

Agency policies and administrative decisions. See, e.g., *Whole Effluent Toxicity (WET) Control Policy.* The Regional Water Board, however, is not required to include a schedule of compliance, but may issue a Time Schedule Order pursuant to Water Code section 13300 or a Cease and Desist Order pursuant to Water Code section 13301 where it finds that the discharger is violating or threatening to violate the permit. The Regional Water Board will consider the merits of each case in determining whether it is appropriate to include a compliance schedule in a permit, and, consistent with the Basin Plan, should consider feasibility of achieving compliance, and must impose a schedule that is as short as practicable to achieve compliance with the objectives, criteria, or effluent limit based on the objective or criteria.

CENTRAL VALLEY CLEAN WATER ASSOCIATION (CVCWA) COMMENTS

CVCWA – COMMENT #1: CVCWA is concerned with the proposed chlorine residual effluent limit as it is coupled with continuous monitoring. CVCWA contends that existing monitoring equipment cannot comply with the proposed continuous monitoring requirements. The State Water Board is currently reserving judgment on the proposed rule. In light of the State Water Board's current position, CVCWA recommends that the Regional Water Board refrain from adopting chlorine residual effluent limits with continuous monitoring requirements at this time.

RESPONSE: The requirement to continuously monitor chlorine is not a new requirement. NPDES dischargers have been capable of complying with continuous chlorine residual monitoring for some time. See response to CITY OF TRACY - WDR COMMENT #18, above, for additional information regarding requirements to continuously monitor chlorine.

CVCWA – COMMENT #2: CVCWA argues that when applying the USEPA's recommended chronic criterion for aluminum and developing effluent limitations, the Regional Water Board should consider factors such as pH and hardness of the receiving water.

RESPONSE: See response to CITY OF TRACY - WDR COMMENT #13, above.

CVCWA – COMMENT #3: CVCWA is concerned with the Regional Water Board's approach with regards to establishing effluent limitations for copper. In this case, the Regional Water Board proposes to use the CTR criteria to establish the average monthly effluent limitation and the Basin Plan site-specific objective to establish the maximum daily effluent limitation.

RESPONSE: See response to the City of Tracy – Comment #14.

SOUTH DELTA WATER AGENCY (SDWA) COMMENTS

SDWA – COMMENT #1: The Order lists Section 122.44(d) of the Federal Regulations as requiring limitations on pollutants that will contribute to an exceedance of numeric water quality standards. The Regional Board should better explain its reasoning for allowing salinity (EC) discharges well in excess of the standard into areas that will likely have regular exceedances of that standard.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

SDWA – COMMENT #2: On pages 3-4, the list of impairments for the eastern Delta omits EC and TDS.

RESPONSE: The eastern portion of the Delta is not listed as impaired for electrical conductivity (EC) or total dissolved solids on the 2002 CWA Section 303(d) List Of Water Quality Limited Segments. The western portion is, however, listed for EC. After further review it was determined that an error was made in evaluating the dividing line from the western to the eastern portion of Delta for Old River. It has been discovered that the western portion extends east up Old River to just upstream of the City's discharge. Therefore, the City discharges to the western portion of the Delta for purposes of the 303(d) list. Regional Water Board staff will propose to modify the Order accordingly, as a late revision.

SDWA – COMMENT #3: In referring to the "Anti-Backsliding" requirements of the CWA, the Order states on page 5 that its effluent limitations are at least as stringent as the previous limitations. This is difficult to understand. Attachment F includes a description of existing requirements. This description lists no limit on EC discharges (which doesn't seem correct), and includes the "highest average monthly discharge." For EC, this highest average is 1753 uS/cm, footnoted as being the "Highest Annual Average." From this it seems that the Order allows an increase in EC discharges of 30% (from 1753 to 2265). This does not appear to comply with the Anti-Backsliding, or non-degradation policies of State and Federal law.

RESPONSE: The current Order regulating the discharge (96-104) does not contain an effluent limitation for EC. The proposed performance-based interim effluent limitation was established based upon statistical procedures established in EPA guidance. The statement in Finding O of the tentative Permit is accurate.

SDWA – COMMENT #4: The Order requires monitoring at Location M-001. From the description in Attachment E, Section IV, this location appears to be somewhere near the actual outfall. However, Figure E-1 does not list any M-001 location, but specifies a

receiving water monitoring station at “R-001" located at the head of Old River. The Order should clarify in the text, on page E-2 and E-3 the locations of all the sites.

RESPONSE: The table on page E-2 of the Monitoring and Reporting Program provides a description of each of the monitoring locations. Monitoring location M-001 is for measuring the effluent that is discharged through Outfall 001 and Outfall 002 and is required to be measured at the final effluent pump station.

SDWA – COMMENT #5: Section V. beginning on page 11 lists receiving water limitations, but omits salinity/EC. The Southern Delta has three compliance locations for EC as set forth in the 1995 Water Quality Control Plan and implemented in D-1641. If the Regional Board chooses to deal with the salinity issue later in the Order, it should clarify in Section V. why EC is not addressed in that section.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

SDWA – COMMENT #6: On page 13, the Order lists receiving water limitations for pesticide discharges. These criteria should be at least as stringent as those currently imposed (and monitored) under the Ag Waiver program.

RESPONSE: The receiving water limitations for pesticides in the tentative Permit are based on the water quality objectives contained in the Basin Plan. Under the Irrigated Lands waiver program, dischargers are required to monitor for pesticides and perform certain mitigation measures when pesticide action levels or triggers are exceeded in the receiving water. These pesticide triggers are not criteria that can be used for effluent or receiving water limitations in NPDES permits.

SDWA – COMMENT #7: Pages 19 and 21 identify a reporting condition which requires the discharger to investigate the “appropriate EC levels to protect the beneficial uses of agricultural supply in areas irrigated with Old River waters in the vicinity of the discharge.” The report seeks information on “sodium adsorption ratios” “effects of rainfall and flooding on leaching” and how “climate, soil chemistry” and “background water quality” may affect agricultural beneficial uses. Such an investigation and its results are contrary to not only existing water quality objectives, but also to the statutory process by which water quality objectives are set. Embarking on a procedure by which the Regional Board may allow discharges in excess of established and adjudicated standards is contrary to the legal requirements of both the Porter-Cologne Act and the Clean Water Act.

The water quality necessary to protect agricultural beneficial uses in the South Delta was determined through an open and public process which encompassed thousands of man-hours, extensive technical review, and evidentiary hearing before the State Water Resources Control Board. The information sought has already been produced and is

part of the SWRCB's records. Attached hereto are SDWA's exhibits, testimony and transcripts for a CDO hearing conducted earlier this year before the SWRCB. As the materials indicate, the conditions in the South Delta are such that the diversity of soils prevent adequate leaching and result in the build-up of salts in the soils. The only confusion on this issue is the Regional Board's apparent desire to ignore the data.

The Regional Board cannot attempt to escape the legal process involved and requirements of issuing waste discharge permits by having a permittee produce its own analysis of what water quality protects any particular beneficial use. The standards have been set; neither the Regional Board or a discharger can unilaterally change them. If the Regional Board chooses to delay or excuse compliance with water quality standards it may do so only by complying with the law. It can't do so by conducting (or ordering) its own non-public study as to what is necessary to protect beneficial uses. The subject provision must be stricken or it will be overturned in a judicial review of the final Order.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

SDWA – COMMENT #8: On page 22, the Order specifies that an EC of 1350 is a reasonable intermediate goal that can be achieved in the permit term. The Order should clarify when that goal should/must be reached.

RESPONSE: The tentative Permit specifies a goal to indicate the level of reduction that is expected of the Discharger during the permit term. Goals are not enforceable, but they are a statement by the Regional Water Board on our expected achievement to be reached by the City in the permit term, which is five years for NPDES permits.

SDWA – COMMENT #9: The Order should explain why an increase in discharges (to 10.8 mgd) should be allowed before any actions are implemented which actually address the discharge of salinity in excess of three times the current water quality standards. As written, the Order allows increases to 10.8 mgd, then up to 16 mgd if the discharge for/of EC "fully protects the beneficial use of agricultural supply;" not the existing water quality objectives.

RESPONSE: Actions to reduce salinity are required before the discharge can be increased to 10.8 mgd. Provision VI.C.4.b. contains the requirements that must be met before the discharge can be increased to 10.8 mgd. The Discharger must be in compliance with the time schedule to develop a study to determine best practicable treatment or control of the discharge of salinity and in compliance with the time schedule to develop a salinity study. In addition, the Discharger must provide annual reports that demonstrate reasonable progress in the reduction of salinity in the discharge.

SDWA – COMMENT #10: The Monitoring locations specified on pages E-2 and E-3 need discussion and explanation. Without any tidal barriers, the Tracy effluent has a net flow out Old River and Grant Line Canal. Even with the incoming tides, the effluent does not travel a significant distance up Old River. On the outgoing tides, the effluent travels generally downstream to the CVP export pumps and a portion eventually makes its way back into the City's' supply.

With temporary barriers, there is still a net flow downstream, though radically reduced to the point where the flow is minor. This results in a large (virtually) stagnant zone in Old River upstream of the Tracy Old River barrier to approximately the Tracy Boulevard Bridge. In this stagnant zone, DO decreases, salinity increases, and all other constituents of concern concentrate. That portion of the effluent that enters Grant Line Road joins a net flow out that channel. Again, virtually none of the effluent travels very far upstream on Old River.

With the permanent barriers (anticipated under the South Delta Improvement Plan, or "SDIP") the flows should be significantly different. The permanent barriers will either create a sufficient net flow over (downstream) the Grant Line barrier, or, may create the net flow over the Tracy Old River barrier. Either way, the program seeks to establish a sufficient net flow to maintain a flushing of the area. SDWA comments to the project address the apparent shortcomings of the plan, which include the periodic lack of flushing flows which may result in stagnant zones on low tide cycles. During those times, water will flow into the South Delta, but there will be little if any outflow flushing the salinity.

In light of this, the monitoring stations should be situated so that they can monitor the channel conditions regardless of whether barriers are in and operating or not. Monitoring at the Head of Old River would seem inappropriate, while additional stations on Old River, Doughty Cut/Salmon Slough area and Grant Line Canal would seem warranted.

RESPONSE: Receiving water monitoring is required to evaluate compliance with permit conditions. Adequate receiving water monitoring has been required in the tentative Permit downstream of the discharge to achieve this. Receiving water monitoring is required 500 feet east and 500 feet west of the discharge, R-002 and R-003, respectively. These locations are necessary to evaluate near-field compliance of the discharge. Since Old River is tidally influenced in the vicinity of the discharge, depending on the tides, R-002 or R-003 could be "downstream" of the discharge at any particular time. Receiving water monitoring stations R-004 (Old River) and R-005 (Grant Line Canal) are located 3-4 miles downstream of the discharge to evaluate the far-field impacts of the discharge. Monitoring in Old River near the Old River temporary barrier is already being required in the tentative NPDES permit for the Mountain House Community Services District. Therefore, additional monitoring in Old River by Tracy is not necessary. Furthermore,

additional monitoring in the Doughty Cut/Salmon Slough area is not necessary to determine compliance with the tentative Permit and no technical justification for the additional monitoring locations has been provided. Head of Old River is upstream and most likely out of the influence of the discharge. This monitoring location is necessary to understand ambient background water quality. Monitoring from this location would be used predominantly for the reasonable potential analysis for the next permitting cycle.

SDWA – COMMENT #11: The Order (page E-5) requires effluent be monitored for EC at a minimum of once a month. The current standard in the receiving waters is a monthly running average which is calculated by daily inputs. For receiving waters, the Order requires weekly testing (E-10). These are clearly inadequate. In order to fully monitor the salinity being discharged and its effects on local beneficial uses, it would seem proper to have numerous, continuous monitoring. Without such monitoring, the effluent could regularly be far in excess of the standard or the permit term. In addition, the receiving waters might be in excess of the standard and further discharges by the City could exacerbate (or cause) violations, thus defeating the purpose of the permit and the standard.

RESPONSE: Weekly receiving water monitoring is adequate to evaluate compliance with the conditions of this permit. Continuous EC monitoring in the receiving water is not justified for this permittee. However, the effluent EC monitoring frequency has been increased from monthly to weekly. This was an oversight.

SDWA – COMMENT #12: On Page E-7, the Order requires quarterly testing of chronic toxicity on three species. Under the Ag Waiver program of the Regional Board, the local Coalition is required to test at numerous sites after two winter storm events, and six times during the “irrigation” season. All these test include toxicity testing of three species. Given the continuous discharge of the City effluent, quarterly testing appears drastically inadequate.

RESPONSE: The requirement for quarterly chronic toxicity testing is adequate for the Facility. If toxicity is observed, the tentative Permit requires accelerated monitoring and initiation of a toxicity reduction evaluation. Furthermore, the City must take actions to mitigate the impact of the discharge and prevent reoccurrence of toxicity. The monitoring requirements for chronic whole effluent toxicity, combined with the provisions for toxicity identification and reduction, are adequate in the tentative Permit.

SDWA – COMMENT #13: The Order requires the City’s supply be monitored once a year for EC. Checking the salts in the supply once a year suggests efforts to control salinity are illusory.

RESPONSE: The monitoring frequency for total dissolved solids and EC of the water supply has been increased to monthly.

SDWA – COMMENT #14: The Order references the SWRCB Anti-degradation policy set forth in Resolution 68-16. This policy requires the maintenance of high quality waters until it is demonstrated that (i) a change (degradation) is consistent with the maximum benefit to the people of the State, (ii) will not unreasonably affect beneficial uses, and (iii) will not result in quality less than that described in the Regional Board's policies. The Order states that the degradation allowed under the proposed discharge requirements meets these criteria, but does not explain how.

It states the degradation is consistent with the maximum benefit to the people of the state. We see no analysis on which such a conclusion is based. Benefit to the people is not a function of comparing how many people are harmed to how many are not. The City of Tracy's growth may be a benefit, but the cost associated with that growth must include the protection of the waters of the state. The damage to the local agriculture from increased discharges of increased salinity also has many adverse impacts to the people of the state. Again, the conclusion is not supported.

The Order also states that discharge is a necessary function of growth, but makes no effort to connect this to the Resolution 68-16 criteria. Similarly, the Order notes that the eventual permit would result in "a high level of treatment of sewage waste." Again, this may be the case, but it does not address the applicable criteria. The authors appear to be mis-characterizing an economic analysis which they assumedly think shows it is better to allow degradation than to pay for treatment. If such a conclusion is possible, it would be a necessary component of the City's EIR for its general plan or other planning and environmental documents supporting its growth. Merely stating the conclusions in the brief analysis of the Order is inappropriate and cannot substitute for a necessary follow-on EIR if the previous documents failed to analyze the adverse impacts from discharging waters with over three times the allowable EC.

The Order fails to examine the other criteria in the anti-degradation policy; not unreasonably affecting beneficial uses and not being in conflict with existing Regional Board policies. Discharges of 2265 EC when the standard is 700 EC is necessarily an unreasonable affect on agricultural beneficial uses. Even parties seeking a lessening of the standard believe1000 EC is required to protect agriculture. Further, since the Regional Board policies currently specify 450 TDS and 700 EC, we see no way the Order can conclude it complies with Resolution 68-16.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

SDWA – COMMENT #15: The Order notes that the interim effluent limit of 2265 EC is "essentially the same as the short term secondary maximum contaminant level for

protection of municipal and domestic supply" (2200 EC). There is no apparent reason why a municipal and domestic limit irrelevant to discharges in excess of existing standards. No reason is given for allowing a greater EC than the municipal and domestic limits; having the numbers close is not in anyway meaningful.

RESPONSE: The interim effluent limitations are based on the performance of the Facility. The purpose of the interim effluent limit is to cap the EC concentration and ensure it does not increase.

SDWA – COMMENT #16: Table F-1 purports to give the surface water "antidegradation" analysis. Here we find that the City's average discharge EC is 1800, not the 1753 previously referenced. Which is the true number?

The Table includes three footnotes, one of which is associated with EC, TDS, and Chloride. The footnote (b) appears to set forth an argument as to why existing water quality objectives for agricultural beneficial uses are not needed. It speculates that the agricultural beneficial users may need to permanently change their crops so that the City can discharge at over three times the standard. It also speculates that, contrary to the evidence, testimony and conclusions of the SWRCB, South Delta agricultural interests can simply change their irrigation methods and live with the higher concentrations of salt. Finally, it suggests that maintaining maximum yields is not necessary because the City of Tracy wants to grow. It is strange to have such language in the analysis of impacts to water quality. It indicates both a bias against agriculture and a lack of understanding of the issues facing the South Delta and water quality in general.

Further, the Table leaves "blank" the information for the mass loading of salts resulting from the increase and any information on the increase. It is a simple calculation to determine how much salt is in the increased discharge.

RESPONSE: The average EC of the discharge has been rounded in the table. There is essentially no difference between an EC of 1753 µmhos/cm and 1800 µmhos/cm.

The footnote in the table explains why there is not an estimation of future EC when the discharge is 16 mgd. The future effluent concentrations are estimated based on the effluent limitations in the tentative Permit. Since there is not a final effluent limitation for EC it is impossible to estimate what the EC of the discharge will be in the future. The tentative Permit requires the Discharger to develop a study to determine the site-specific EC concentration that is protective of the beneficial uses in the South Delta. The agricultural water quality goal of 700 µmhos/cm, recommended in *Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985*), is based on a worst-case condition. This may not be appropriate for the South Delta in the vicinity of the discharge. The approach taken

in the tentative Permit is in accordance with the State Water Board Woodland decision, *In the Matter of the Own Motion Review of the City of Woodland (WQO 2004-0010)*.

The mass loading for EC is left blank in Table F-1, because it is not possible to calculate a mass loading for EC.

SDWA – COMMENT #17: Attachment F, beginning on page F-15 and continuing describes the temporary and proposed barrier programs in the South Delta. It also references modeling and other investigations performed to analyze the effects of the Tracy effluent discharge to the waters of Old River and other South Delta channels. The descriptions contained some inaccuracies and fail to include the most recent and reliable information.

The temporary barrier program is not constituted to, nor does it address the water quality standards in the interior South Delta. The Bureau does operate New Melones to control salinities at Vernalis, but the downstream temporary barriers are to control water stage or level, not salinity. Initially, it was hoped that the temporary barriers would decrease salinity concentrations somewhat, but experience has shown the opposite. The barriers have moved the null zones created by the export pumps to different locations, and generally increase the scope of those null zones. Currently, in addition to the null zones associated with dead end channels, the temporary barriers create (nearly) null zones immediately upstream of the Tracy Old River and Middle River barriers. Prior to the high flow years of 2006 and 2005, these null zones exacerbated salt concentrations and created areas of minimal DO, resulting in local fish kills (see Dr. Fred Lee, at_www.gfredlee.com_ (http://www.gfredlee.com)).

The three agricultural barriers are sometimes installed as early as April, but operations of those barriers are always conditioned on fishery agency concerns regarding endangered and threatened species, especially Delta smelt. Typically the Tracy Old River and Middle River barriers are installed in April but the flap gates not operated until after the HOR barrier is removed (generally post VAMP flows). The Grant Line Canal barrier is typically only partially installed and then operated thereafter, also post VAMP. This hybrid configuration provides significantly different flows than with" normal" barrier operations. Pursuant to a yearly agreement with SDWA, DWR generally always allows water to flow through the fall HOR barrier to protect downstream water levels. The above operations are not referenced in Attachment F.

The permanent barrier designs are for all practical purposes set, and not being dependent on further temporary barrier operations and analysis. The draft EIS/R for the SDIP has been released for public review, and DWR is currently preparing response to comments and finalizing the document.

Attachment F list two different modeling efforts used to analyze the effects of the project. However, the document notes that neither is reliable for this purpose. Studies

calibrated during wet years only and with incorrect (partial) barrier operations are meaningless in analyzing the proposed increased discharge. Before any new permit is considered, both Tracy and the Regional Board must consult with DWR and discuss the modeling done by that agency. In the development of the SDIP DEIS/R, DWR has produced a large number of modeling runs covering a myriad of scenarios. Those efforts would certainly address (to a greater extent than does the Order) the effects on water quality and flow resulting from the proposed increase in discharges. I suggest contacting Mr. Paul Marshall of DWR (marshall@water.ca.gov); he is the project lead for the SDIP. The minimal treatment of the mixing of the large volumes of salt proposed for discharge prevents the Board from giving the matter any serious consideration.

RESPONSE: Regional Water Board staff have consulted with Mr. Paul Marshall for assistance in describing the operations of the temporary barriers and regarding the South Delta Improvements Program (SDIP). The low flow stagnant conditions of Old River in the vicinity of the discharge are documented in the tentative Permit. Consequently, no dilution is allowed for most conditions, which has resulted in strict end-of-pipe limitations for most effluent limitations. The only dilution allowed in the tentative Permit is for human health criteria, which is based on long-term harmonic mean flows. The dilution credits were established based on modeling performed for the SDIP. With regards to salt, the Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) COMMENTS

DWR – COMMENT #1: The Department of Water Resources strongly objects to the Draft NPDES Permit for the City of Tracy. Contrary to its supporting attachments, the Draft Order does not implement the water quality objectives of the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (May 1995)* (Bay-Delta Plan). The Draft Order imposes an extremely weak effluent limitation for salinity and an unenforced goal. It includes no requirement for source control on the industries and no recycling requirement. The Draft Order, if accepted, would aggravate salinity conditions in the south Delta and increase the frequency the water quality objectives would be exceeded.

> **RESPONSE:** The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

DWR – COMMENT #2: The Bay-Delta Plan is designed to be implemented in conjunction with RWQCB decisions to provide a coordinated approach to protecting the beneficial uses of the Bay-Delta estuary. The Draft Order is inconsistent with the approach intended by the Bay-Delta Plan and Water Rights Decision 1641, which focus on actions in the south Delta to control in-Delta discharges of salt, improve dilution flows and circulation. Neither suggests that municipal dischargers of salt in the south Delta should be allowed to increase salinity discharges as their cities grow and the municipal wastewater discharges increase.

> **RESPONSE:** The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

DWR – COMMENT #3: The Draft Order allows the City of Tracy to degrade water quality in the south Delta while the responsibility for meeting the south Delta salinity objectives falls primarily upon DWR and the Bureau of Reclamation. DWR and the Bureau would be responsible for diluting the increased discharge of salt from growth in the City of Tracy.

> **RESPONSE:** The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

DWR – COMMENT #4: The Best Practical Treatment or Control (BPTC) of Salinity (page 21 Limitations and Discharge Requirements) effectively delays any imposition of tighter effluent limitations for a minimum of two and one-half years. Any new effluent limitation required as a part of this BPTC study should be available for comment by interested parties once it is developed and before the permit is reopened to insert it.

RESPONSE: Interested parties will have the opportunity to comment on any proposed changes to the Order. An amendment of the Order requires public comment on the proposed changes and a public hearing.

DWR – COMMENT #5: Apparently the Board is considering Land Discharge Specifications in a separate Waste Discharge Requirement Order for the groundwater under and near the unlined industrial wastewater ponds. Proposed changes in the remediation of the groundwater or decreasing infiltration of the ponds, such as lining them, could affect salinity levels of the wastewater discharge covered in this draft Order. These two orders should be considered jointly.

RESPONSE: While we agree that it would have been optimal to have considered the Orders together, the waste discharge requirements for the land discharge are currently under development and are not ready to be considered at the August Regional Water Board meeting. If salinity of the discharge was adversely affected by adopting and implementing the WDR's for the land discharge, the City would need to step up its salinity reduction efforts, through additional pretreatment or other controls, in order to comply with its interim salinity limit and stay on target to meet the intermediate salinity goal. The WDR's would have no affect on the limitations or requirements required by the NPDES permit.

DWR – COMMENT #6: The Electrical Conductivity (EC) Study (page 21 Limitations and Discharge Requirements) does not contain any consideration of the crop type (Attachment F – Fact Sheet mentions beans). The study should include a reference to crop type because the type of crop defines the EC objective for the 1995 Water Quality Control Plan. Crop type is an essential element when considering site-specific numeric values for EC that fully protect Old River's agricultural supply use designation.

RESPONSE: The EC study requires the City to develop site-specific numeric values for EC that protect the agricultural supply use designation in Old River. We agree that crop type is essential and necessary for this study.

DWR – COMMENT #7: The reference to the South Delta Improvements Program on Page F-16 should be replaced.

RESPONSE: The proposed language changes have been made to the Fact Sheet to represent the more current information regarding the SDIP.

CALIFORNIA URBAN WATER AGENCIES (CUWA)

CUWA – COMMENT #1: Nutrients (nitrogen and phosphorus) that stimulate algal growth in the Delta, water conveyance facilities, and downstream reservoirs, are a key concern of CUWA's members. Although, the tentative waste discharge requirements establish effluent limitations for ammonia, nitrate, and nitrite, the allowable concentrations in the effluent are not based on the biostimulatory impacts of the wastewater. In addition, phosphorus is not addressed in the tentative waste discharge requirements.

RESPONSE: Numeric water quality objectives currently do not exist for the biostimulatory impacts of nitrogen and phosphorus. The Basin Plan contains a narrative water quality objective for biostimulatory substances, which states, "*water shall not contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.*" A receiving water limitation for biostimulatory substances is included in the tentative Permit to implement this Basin Plan objective. Even though the effluent limitations in the tentative Permit were not developed based on biostimulatory impacts, compliance with the tentative Permit would represent a significant reduction in biostimulatory substances discharged to Old River.

There is not adequate information at this time to determine the biostimulatory impacts of the Tracy discharge. We understand that this is an important issue and will propose to add new effluent and receiving water monitoring requirements for total phosphorus and total nitrogen, as a late revision to the permit, to better understand the biostimulatory impacts of the Tracy discharge.

CUWA – COMMENT #2: Based on the current schedule for the Drinking Water Policy efforts, CUWA expects that the Basin Plan will be amended in 2009 or 2010 to incorporate additional protection of drinking water supplies. Since the tentative waste discharge requirements for Tracy will extend to 2011, CUWA requests that the Regional Water Board add a reopener provision to amend the permit if necessary.

RESPONSE: Regional Water Board staff will propose that a reopener provision be added to the tentative Permit as a late revision to the permit.

CUWA – COMMENT #3: CUWA requests that the Regional Water Board include a requirement to immediately notify downstream water agencies if there are spills of untreated or partially treated wastewater from the Tracy Wastewater Treatment Plant or collection system that reach Delta waters.

RESPONSE: Due to the close proximity of drinking water intakes downstream of the discharge, immediate notification of downstream water agencies would be required by the tentative Permit to minimize any adverse effects resulting from spills

of untreated or partially treated wastewater from the Facility or collection system that reach Delta waters. To provide clarification, Regional Water Board staff will propose, as a late revision, to modify Regional Water Board Standard Provisions Section VI.A.2.f., as follows:

f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal, and <u>adequate public notification to downstream water agencies or others who might contact the non-complying discharge.</u>

The City must maintain an adequate spill response plan that includes a list of persons to notify in the event of a permit violation. Regional Water Board staff discussed CUWA's concern with the City and they would be willing to update its spill response plan to include immediate notification of the requested downstream water agencies[4] in the event of a spill.

[4] CUWA requested the following water agencies be notified: Alameda County Flood Control and Water Conservation District, Zone 7; Alameda County Water District; Santa Clara Valley Water District; Contra Costa Water District; and California Department of Water Resources.

STATE WATER CONTRACTORS (SWC)

SWC – COMMENT #1: The Regional Water Board's failure to issue effluent limitations requiring the City to reduce the high concentration of salt in its municipal discharge effectively shifts the burden of cleaning up Tracy's wastewater to the State Water Project and the Federal Central Valley Project. Contrary to the Regional Water Board's claim that its Order "implements" the objectives of the State Water Board's Bay-Delta Plan, the tentative Permit only establishes an intermediate salinity "goal" that is grossly incompatible with the agricultural water quality objectives established in the Bay-Delta Plan.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

SWC – COMMENT #2: The south Delta is the source of significant portion of the drinking water supplies for 22 million Californians. Tracy's wastewater treatment plant discharges its effluent in close proximity of the SWP and CVP export pumps, creating a direct link between the quality of the effluent and the quality of export drinking water supplies. The steps the draft Order takes toward controlling Tracy's effluent discharges are not adequate to protect drinking water beneficial uses from adverse impacts due to nitrogen, phosphorus, total organic carbon and salinity loading. The Regional Water Board should consider additional permit restrictions to protect the Delta as a source of drinking water supplies for much of the state.

RESPONSE: See response to CUWA – Comment #1.

SWC – COMMENT #3: The staff report does not discuss pretreatment of industrial wastes, such as those emanating from the Leprino Foods facility, as a means of reducing the inflow of highly saline waste to the City's wastewater treatment plant. Further, the report does not consider whether funding to support off-site efforts to reduce San Joaquin River salt loads might be a cost effective means of reducing the receiving water impacts of the City's saline discharges. Finally, the impact and cumulative impact of the tentative Permit and similar ones adopted by the Regional Water Board on statewide water supplies has not been considered. There almost appears to be an unstated assumption that it is acceptable to degrade south Delta water quality because Project water supplies can be used to fix the problem, even though the cause of the problem is not SWP operations, but the failure to properly regulate local saline discharges.

RESPONSE: NPDES permits cannot prescribe specific measures the Discharger must take (e.g. pretreatment program improvements vs. treatment options) to comply with permits, but can only set the requirements and limitations to which dischargers must comply. The tentative Permit clearly identifies Leprino as a large

contributor of salinity in the City's discharge. In addition, the City's water supply salinity is also a part of the problem. Until recently, much of the City's water supply has come from groundwater, which is relatively high in salt for a municipal water supply. Additional water supply is obtained from the Delta-Mendota Canal, which is Delta water. Starting in August 2005, the City started receiving low salinity water from the Sierras, replacing much of the higher salinity groundwater supply. Based solely on water supply salinity and a common increase in salinity for municipal use of water (500 µmhos/cm), Tracy's discharge would exceed both the irrigation and non-irrigation season standards. The tentative Permit requires the City to develop and implement a pollution prevention program, sets a salinity reduction goal, and requires annual reports describing its efforts to reduce effluent salinity to work toward the intermediate goal of 1,320 µmhos/cm. These provisions are included to require the City to identify the sources of salinity and implement measures to remove them.

The tentative Permit does not discuss the option of a pollutant offset program. Such offset alternatives may develop over the next few years, but are generally not available at this time. An example has been identified in the Santa Ana River Basin Region where its Board has prescribed final effluent limits in NPDES Permits that are in effect unless certain conditions occur. These conditions include a finding by the Executive Officer that salinity in excess of the effluent limits are due to the quality of water supply sources, or due solely to chemical additions in the treatment plant. The Permits allow the discharger to offset the excess salt additions by financially participating in area-wide salt studies, application of salt removal credits from groundwater desalinization projects, or implementation of alternative offset programs approved by the EO. This information has been provided in the staff report that lays out options for the Regional Water Board to consider in adopting the tentative Permit.

Regarding the requirements in the tentative Permit relative to regulating the saline discharge, the Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

METROPOLITAN WATER DISTRICT (MWD)

MWD – COMMENT #1: MWD asks that the Regional Water Board establish a monthly average effluent limitation for total inorganic nitrogen, assuming 80 percent removal, and that Tracy implement any modifications to the nitrification/denitrification treatment train to achieve the limitation. We further ask that the Regional Water Board establish limits for total phosphorus, considering the US EPA's guidelines for nutrient criteria. The permit should also include monitoring requirements for phosphorus.

RESPONSE: The technical basis for an 80 percent removal of total inorganic nitrogen was not provided by MWD. Therefore, an effluent limitation based on the technological capabilities of Tracy's proposed nitrification/denitrification facilities cannot be established. Furthermore, there is currently insufficient information to establish an effluent limitation for phosphorus. However, to better understand the biostimulatory impacts of the discharge, Regional Water Board staff will propose that new effluent and receiving water monitoring requirements be added to the permit for total phosphorus and total nitrogen, as a late revision to the permit.

MWD – COMMENT #2: MWD asks that the Regional Water Board include effluent limits for TOC, along with monitoring requirements. The limits should consider the level of TOC removal expected to be achieved as a result of the planned coagulation/filtration processes as well as any additional removal that would occur as part of the treatment to achieve the requested phosphorus removal.

RESPONSE: There is currently insufficient information to establish an effluent limitation for TOC. However, Regional Water Board staff will propose that new effluent and receiving water monitoring requirements be added to the tentative Permit for TOC, as a late revision to the permit.

MWD – COMMENT #3: While the salinity requirements in the tentative Permit will reduce loading over the long-term, even if fully implemented, they still may be inadequate to meet downstream salinity water quality objectives and thus increase the burden of salinity control for the State Water Project and Central Valley Project. The issue of salinity/EC is discussed in greater detail in the comment letter submitted by the State Water Contractors, and we ask that you seriously consider their comments and recommendations.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

ALAMEDA COUNTY WATER DISTRICT (ACWD)

ACWD – COMMENT #1: .The Alameda County Water District encourage the Regional Water Board to consider permit provisions to improve protection for nutrients, organic carbon, and salinity/electrical conductivity. ACWD supports comments on these issues that have been submitted by the State Water Contractors and California Urban Water Agencies in regards to the tentative Order.

RESPONSE: See responses to CUWA – Comment #1 and DWR – Comment #1.

WESTLANDS WATER DISTRICT (WESTLANDS)

WESTLANDS – COMMENT #1: The tentative Permit requires little of the City to mitigate for adverse water quality impacts caused by discharges from the Wastewater Treatment Plant. The tentative Permit would require the City to complete a report on the results of a site-specific investigation of appropriate EC levels to protect the beneficial use of agricultural supply in areas irrigated with Old River waters in the vicinity of the discharge. Such a report would likely have significant implications. As such, it is not appropriate for it to be prepared by the City. At the least, a group of stakeholders should be involved in its preparation.

RESPONSE: To implement the findings of any study developed by the Discharger would require Regional Water Board action, which would allow for public review and comment.

WESTLANDS – COMMENT #2: The tentative Permit would establish an interim effluent for electrical conductivity of 2,265 µmhos/cm and a goal of 1,350 µmhos/cm. Westlands is very concerned that such an effluent limit and goal are inconsistent with the State Water Board's Bay-Delta Plan and would potentially increase the burden placed on the CVP and thus potentially jeopardize the water supply of Westlands.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

WESTLANDS – COMMENT #3: Westlands is also concerned because, if the Regional Water Board authorizes the City to discharge at levels that far exceed the Old River objectives, as reflected in the Tentative Permit, Reclamation and DWR may be forced to re-operate the CVP and SWP, respectively. In particular, some have argued that when Old River objectives are exceeded, Reclamation and DWR must release water from their reservoirs and/or reduce diversions of water from the Delta. Such a result would improperly force Reclamation and DWR to take action intended to mitigate for the City's impacts and jeopardize further the CVP and SWP water otherwise available.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)

STATE WATER BOARD – COMMENT #1: The State Water Board staff has reviewed the tentative NPDES Permit and Time Schedule Order for the City of Tracy Wastewater Treatment Plant. Staff has some concerns with regards to the lack of an effluent limitation for Electrical Conductivity (EC) in the tentative permit. The proposed permit concludes there is Reasonable Potential (RP) for the effluent to exceed the EC southern Delta D-1641 objectives and that dilution is not available. However, it does not establish a final effluent limitation.

According to 40 CFR 122.44 (d) (iii), when it is determined that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant. In this case, there is RP for the discharge to exceed the EC southern Delta D-1641 objectives and, therefore, the permit must include effluent limitations for EC.

The State Water Board acknowledges that the southern Delta EC objectives have not been reviewed to date and, thus, its application is not clearly defined and the objectives could very well change. Therefore the tentative permit should clearly indicate that the southern Delta D-1641 objectives for EC at this time cannot be used to determine RP. However, there are other applicable water quality objectives to determine RP and at the very least the permit should protect the MUN use by considering the EC Maximum Contaminant Levels (MCLs) ranges of 900 µmhos/cm (recommended), 1600 µmhos/cm (upper), and 2200 µmhos/cm (short term). The effluent discharged also exceeds these objectives and, thus, has RP to exceed these levels in the receiving water. Therefore, effluent limits must be established.

> **RESPONSE:** The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.

STATE WATER BOARD – COMMENT #2: In addition, a major contributor of salts to the City's wastewater treatment plant is Leprino Foods Company (Leprino), a local cheese manufacturer, which leases two aerated lagoons and one unlined oxidation pond from the City for pretreatment of its industrial food processing wastewater but provides no treatment for salts. The Regional Board has the obligation to protect beneficial uses and adopt waste discharge requirements, specifically establish effluent limitations, that adequately control pollutants from entering receiving waters and impact beneficial uses. By not including an effluent limitation for EC at this time, the Regional Board would be dismissing its regulatory responsibility and allowing additional time for the City and Leprino Foods Company to continue to have an economic advantage at the expense of impacting the MUN beneficial use of Old River.

RESPONSE: The Staff Report provides a detailed analysis of the compliance and permitting issues with respect to salinity. The Regional Water Board has several options to consider.